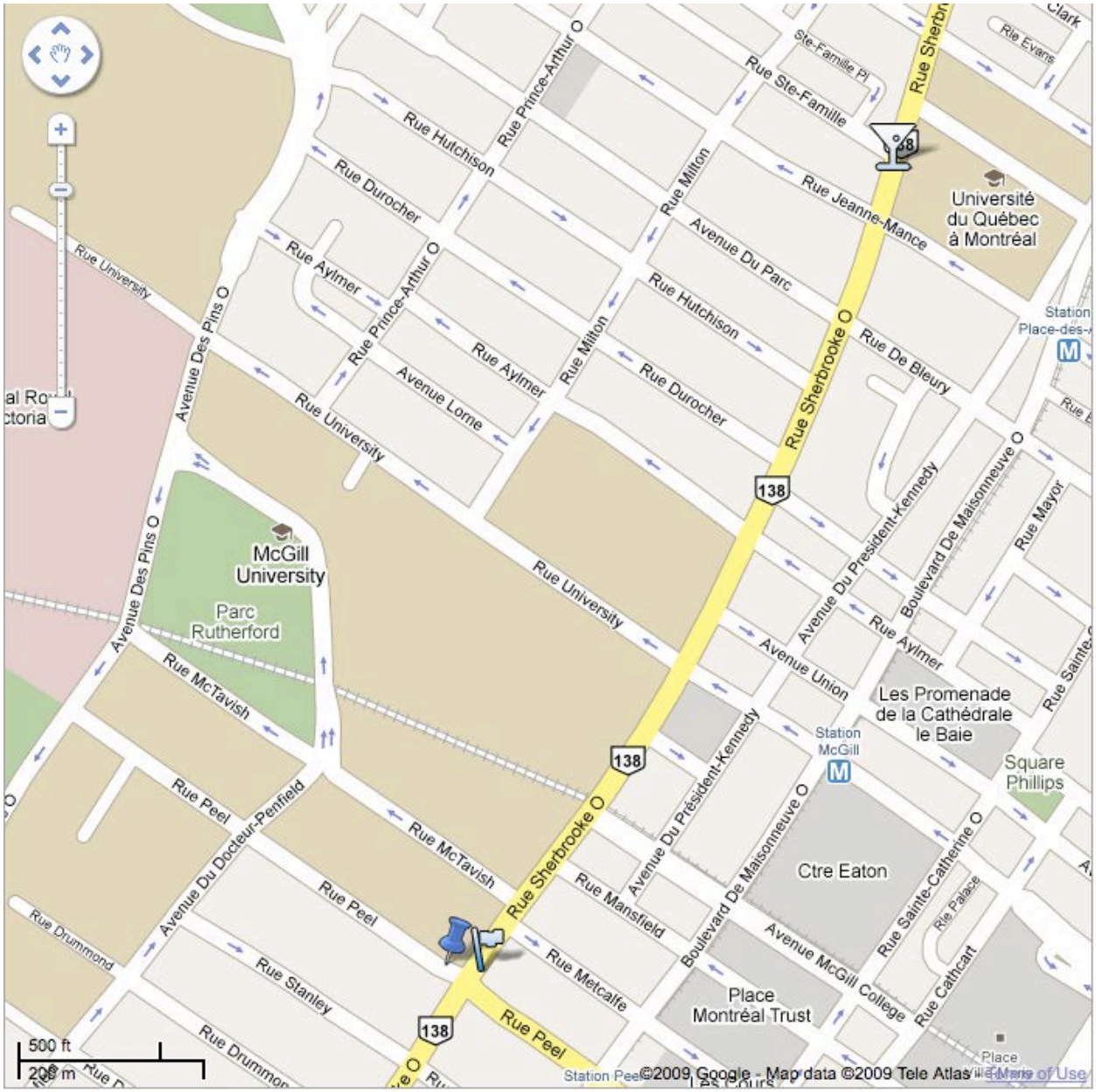
CUSEC 09

SOFTWARE (R)EVOLUTIONS

Montréal, Québec

January 22-24, 2009



Hotel Omni Mont-Royal
Location of all conference activities

Best Western Ville-Marie Hotel
Conference delegates and organizers are staying here

Benelux Brasserie Artisanale
Location of CUSEC 2009's Official Pub Night

Schedule

<table>
<tr><td>8:30am</td><td colspan="2" rowspan="3">Registration</td><td></td><td></td><td></td></tr>
<tr><td>8:45am</td><td></td><td></td><td></td></tr>
<tr><td>9:00am</td><td rowspan="2">Tutorial
Colin Smillie
RIM Room</td><td rowspan="2">Tutorial
James Golick
Salon</td><td colspan="2" rowspan="2">Tutorial
Mark Pavlidis</td></tr>
<tr><td>9:15am</td><td colspan="2" rowspan="2">Opening Remarks</td></tr>
<tr><td>9:30am</td><td></td><td></td><td></td></tr>
<tr><td>9:45am</td><td></td><td></td><td></td><td></td></tr>
<tr><td>10:00am</td><td colspan="2" rowspan="3">Leah Culver
Keynote Presentation
Salon des Saisons</td><td rowspan="2">Academic
Jörg Kienzle
RIM Room</td><td rowspan="2">Academic
Steve Easterbrook
Salon</td><td>Academic
Caitlin Kelleher
RIM Room</td><td>Academic
Jonathan Edwards
Salon</td></tr>
<tr><td>10:15am</td><td rowspan="2">Academic
Jonathan Edwards
Salon</td></tr>
<tr><td>10:30am</td><td colspan="2" rowspan="2">Avi Bryant
Keynote Presentation
Salon des Saisons</td></tr>
<tr><td>10:45am</td><td colspan="2" rowspan="2">Francis Hwang
Keynote Presentation
Salon des Saisons</td></tr>
<tr><td>11:00am</td><td rowspan="3">Jói Sigurðsson
(Google)
RIM Room</td><td rowspan="3">Marty Algire
(Radialpoint)
Salon des Saisons</td></tr>
<tr><td>11:15am</td><td rowspan="2">Lunch
(EA tour @ 12 – limited space, sign up at Reg. Desk)</td><td rowspan="2">Lunch</td></tr>
<tr><td>11:30am</td><td rowspan="2">Lunch</td></tr>
<tr><td>11:45am</td><td rowspan="2">Career Fair
Lobby Area</td><td rowspan="2">Career Fair
Lobby Area</td></tr>
<tr><td>12:00pm</td><td rowspan="3">Richard Stallman
Keynote Presentation
Salon des Saisons</td></tr>
<tr><td>12:15pm</td><td rowspan="5">Lunch</td></tr>
<tr><td>12:30pm</td><td rowspan="2">Career Fair
Lobby Area</td></tr>
<tr><td>12:45pm</td><td rowspan="4">Panel
Salon des Saisons</td></tr>
<tr><td>1:00pm</td><td rowspan="2">Closing Remarks
Salon des Saisons</td></tr>
<tr><td>1:15pm</td><td rowspan="3">Dan Ingalls
Keynote Presentation
Salon des Saisons</td><td rowspan="3">Giles Bowkett
Keynote Presentation
Salon des Saisons</td></tr>
<tr><td>1:30pm</td><td>Group Photo</td></tr>
<tr><td>1:45pm</td><td rowspan="5">IBM Case Study
Programming Competition
Salon des Saisons</td><td rowspan="2">Joey deVilla
(Microsoft)
Salon des Saisons</td></tr>
<tr><td>2:00pm</td><td rowspan="4"></td></tr>
<tr><td>2:15pm</td><td rowspan="3"></td></tr>
<tr><td>2:30pm</td></tr>
<tr><td>2:45pm</td></tr>
<tr><td>3:00pm</td><td colspan="2"></td><td colspan="2"></td></tr>
<tr><td>3:15pm</td><td colspan="2" rowspan="3">Dan Ingalls
Keynote Presentation
Salon des Saisons</td><td colspan="2" rowspan="3">Giles Bowkett
Keynote Presentation
Salon des Saisons</td></tr>
<tr><td>3:30pm</td></tr>
<tr><td>3:45pm</td></tr>
<tr><td>4:00pm</td><td colspan="2" rowspan="2">Closing Remarks
Salon des Saisons</td></tr>
<tr><td>4:15pm</td><td colspan="2"></td></tr>
<tr><td>4:30pm</td><td rowspan="7">IBM Case Study
Programming Competition
Salon des Saisons</td><td colspan="2" rowspan="2">Joey deVilla
(Microsoft)
Salon des Saisons</td><td colspan="2">Group Photo</td></tr>
<tr><td>4:45pm</td><td colspan="2" rowspan="6"></td></tr>
<tr><td>5:00pm</td><td colspan="2" rowspan="5"></td></tr>
<tr><td>5:15pm</td></tr>
<tr><td>5:30pm</td></tr>
<tr><td>5:45pm</td></tr>
<tr><td>6:00pm</td></tr>
<tr><td>6:15pm</td><td colspan="2"></td><td colspan="2"></td></tr>
</table>

Evening Special Events:

Day 1, 9:00pm onwards — ***CUSEC Pub Night***
@ Benelux Brasserie Artisanale (see map)

Day 2, 6:30pm to 8:30pm — ***DemoCampCUSEC3***
@ Conference Centre (Salon des Saisons)

Table of Contents

Chair's Remarks

Ever since CUSEC started we knew there was something special here.

Students from across Canada come here to learn, to network and to celebrate their chosen field. In other words, CUSEC is where we come to geek out. Our speakers this year represent a diverse crop, ranging from young entrepreneurs to founders of meaningful movements in software. No matter their background and diversity, they each have something unique that you can learn from. Which is why we've brought them here, to Montreal, to you, so that they can share their valuable experiences with you.

Over the next three days, we encourage you to talk to as many people as possible and hopefully make new friends. Visit the booths of our sponsors and find out what career opportunities exist for you. Listen to what the presenters have to say to you, and think about it – and we hope it makes you think. One of the things that makes CUSEC so great is that you not only have countless opportunities to listen, but to interact. Take advantage of it while you can, because it only lasts three days a year!

To our sponsors: thank you. Without your generous contributions, CUSEC wouldn't be possible. Please accept our gratitude for giving us the means to host this wonderful gathering, especially in these hard financial times.

CUSEC wouldn't be possible if it weren't for the team of dedicated volunteers who work countless hours behind the scenes in the months leading up to the conference, and especially during the conference itself. It's thanks to these brave, devoted souls that CUSEC is being held in such a fabulous establishment, that there are sponsors here looking to hire you, and that there are prestigious speakers here to teach you life lessons.

Finally, we'd like to give thanks to you, the diligent delegate, for taking the time to come to CUSEC 2009. We hope that you will learn something new, and maybe that new piece of knowledge will lead you to one day start your own software revolution.

Cheers, and enjoy!

Linda and Skrud
On behalf of the CUSEC 2009 team

CUSEC 2009 Team

Directors

Chairs	Linda Wang
	Eitan "Skrud" Levi
Director of Presentations	Andrew Louis
Director of Academic Presentations	William Hua
Director of Sponsorship	Juan Musleh
Director of Finance	Abdullah Salim
Director of Logistics	Claudiu Scotnotis
Director of Marketing & Publicity	Aran Donohue
Director of Events	Kyle Sama
Web Site	Guillaume Theoret
	Rebecca Cohen Palacios
Photographer	Alan Chin

Head Delegates

Carleton University	Denis Zgonjanin
Concordia University	Matthew Gallant
	Vijeta Patel
École Polytechnique	Julien Gascon-Samson
École de Technologie Supérieure	Gabriel Grisé
McMaster University	Asadullah Baig
McGill University	Thomas Hibbert
Queen's University	Jenn Clarke
Université Laval	Université Laval
University of Ottawa	Ahmed Ben Messaoud
University of Toronto	Ebenezer (Eben) Hailemariam
University of Toronto - Scarborough	Abe Tsang
University of Waterloo	Sze Man Clara Choi
	Tyler Szabo
University of Western Ontario	Adam Van Ymeren

Advisors

Abdullah Salim
Neeraj Mathrani
Hugo Levasseur
John Kopanas

(and Michelle 'The Pewnisher' Chua)

CUSEC History

CUSEC's Glorious History (the one we advertise)

In 2001, on a dark and gloomy night, a small group of passionate software engineering students from Concordia University held a private meeting on the top floor of one of Montreal's tallest buildings. Their purpose: to scheme about the future of software engineering students' education in Canada.

Not much is known of the meeting. Everyone who attended the meeting was sworn to secrecy and all the notes that were taken were burned. What is known though, is that at the end of the meeting, it was decided that starting in 2002, an annual conference would be held. This conference would bring the most passionate software engineering students from across Canada together under one roof to listen to and learn from the smartest and the greatest software engineers the world has ever seen.

During the private meeting, nothing was ever mentioned about the great events around the conference. We had no idea about the amazing new friendships and relationships you would forge over the best three days of your school year. Nothing was ever mentioned about the amazing parties held in John Kopanas' suite, which took place until the wee hours of the morning; where the attendees got the opportunity to play poker and exchange horror stories with some of our famous keynote presenters.

CUSEC History Redux (don't talk about CUSEC history)

In 2001, an undergrad (who remains nameless) attended a university technology conference as a head delegate for Concordia University. Starting out extremely excited to go but fell discouraged after the second day. While it was good to have the opportunity to meet with some of the brightest CEOs in business today, what he really wanted to do was meet with people he aspired to become; the Dave Thomases, David Heinemeier Hanssons, Kent Becks, Kathy Sierras and Joel Spolskys of the world.

He foolishly thought that it couldn't be that hard to organize a university conference that catered to people who were looking for the same things as him in a conference. After mentioning this to a few people who shared his excitement, the founding team that brought to you CUSEC 2002 was formed. The rest is history.

A Little Bit From Column A, and a Little Bit From Column B

Both stories have a lot of truth to them (assuming the 7th floor of Concordia University's main building was both the top floor of the building and the tallest building in Montreal). Either way, CUSEC has become what it is today because of Canadian students passion for software engineering, and nothing beats the feeling of following your passion.

CUSEC 2009 extends our deepest thanks to

Platinum Sponsor

RIM

Research in Motion

(http://www.rim.com)

Platinum Sponsor: RIM

Join one of Montreal's top 15 employers!

Who are we?
Radialpoint (www.radialpoint.com) is a leading provider of managed Internet security and care services for Internet service providers (ISPs). Radialpoint's Value Added Services (VAS) are currently available to over 20 million broadband subscribers worldwide at customers that include Bell Aliant, Bell Canada, TELUS and Vidéotron in Canada; AT&T/ BellSouth and Verizon in the US; and, ONO, and Virgin Media in Europe.

Our *Internism* program
Radialpoint provides an Internship program with the opportunity for students to interact and collaborate with other Radialpoint interns and team members, have breakfast with the President/CEO, lunch with the Managers, and engage in technological, career and product strategy discussions with company leaders.

Job opportunities and internships
Radialpoint is committed to developing the next generation of industry professionals. We hire from 10 to 12 interns per semester and make sure to keep the best ones for permanent positions. We also offer some entry–level positions, for those who are interested in starting their career with us. For more information, visit the career section of our website: www.radialpoint.com/jobs

Our current Internships are:
Software Quality Assurance Intern
Technical Support Intern
Business Intelligence Intern
Software Developer Intern (C++ or Java)

Extreme Blue is IBM's incubator for cutting-edge technology. Every summer, top students from across the world come together in teams of 4 to collaborate and create solutions to real business problems. The projects are actual IBM endeavours and represent product enhancements and futuristic work. We are looking for your fresh perspective, creativity, and enthusiasm in designing these solutions!

THE OPPORTUNITY:
- Take ownership of an emerging business opportunity for IBM
- Define and develop the technology for a game-changing product opportunity! Patent your solution!
- Collaborate with fellow top students, and engage IBM's business and technical leaders from different teams, divisions, and countries
- Develop and perfect your presentation skills while pitching your solutions to IBM executives in Canada and throughout the world, as well as Corporate Headquarter executives, at the North American Extreme Blue Expo
- Learn about IBM's products and divisions while creating a powerful network and landing your dream job!

REQUIRED SKILLS:
- Demonstrated passion for technology, business or community (i.e. contribution to open source, volunteerism, programming contests)
- Proven strong programming skills with a minimum of 4 months of industry or research experience
- Ability to take ownership of an idea and turn it into reality
- Strong aptitude for collaborative team work

For Summer 2009 session, we are bursting with ideas for ambitious projects involving hot technologies like Business Intelligence and the Java Virtual Machine, and IBM products such as WebSphere and DB2.

For more information about Extreme Blue, and to apply, visit www.ibm.com/extremeblue. Application deadline is Monday, February 2, 2009.

Gold Sponsors:

Silver Sponsors:

Friend Sponsors:

Keynote Speaker: Leah Culver

Co-Founder, Pownce

Time: Day 1, Thurs January 22
10am – 11am

Room: Salon des Saisons

Swiss Army Knives and Duct Tape

> *The best way to improve your career and your programming skills is to put yourself in difficult positions. Pressure is needed to create diamonds - and great software. Accepting impossible challenges and seeking out new opportunities is critical to creating great products and becoming a rock star programmer. Why be a mediocre coder working a dull job? Why not push yourself to make the next big thing?*

About Leah:

Leah Culver founded Pownce with her friends Kevin Rose and Daniel Burka as a way of sending messages, links, files and events to friends. Leah is the lead developer for the site and spends most of her time working on feature development, fixing bugs, scaling the site, and maintaining the API. She's a recent computer science graduate from the University of Minnesota and enjoys the challenge of developing a web application from scratch. Leah will be speaking about the career choices for recent computer science university graduates.

Keynote Speaker: Dan Ingalls

Distinguished Engineer, Sun Microsystems

Time: Day 1, Thurs January 22
3:15pm – 4:15pm

Room: Salon des Saisons

The Lively Kernel

Starting with the koan that JavaScript is the assembly language of the Internet, Dan will show how an entire computing environment can be built from scratch entirely in JavaScript. The result, the Lively Kernel, runs live in a browser with no installation — it is in fact a web page.

Dan will show how JavaScript is naturally reflective, and how it can be made even more so. The Lively Kernel can edit its own graphics and its own programs, and can save new objects and applications as web pages. It delivers the promise that wherever there is the Internet, there can be authoring.

About Dan:

Dan Ingalls, Distinguished Engineer at Sun Microsystems, is best known for his work on the Smalltalk programming environment, which revolutionized computing for both users and developers through human-computer interaction, the object-oriented paradigm, and development in integrated environments. He also revolutionized graphics with BitBlt and its variations with rotation and antialiasing. For his noteworthy contributions, he has received the ACM Grace Murray Hopper Award and the ACM Software System Award. His most recent work takes these ideas to the World Wide Web through Sun Lab's Lively Kernel Project.

Keynote Speaker: Francis Hwang

Founder, Ruby-NYC
Software Engineer, Diversion Media

Time: Day 2, Fri. January 23
11:00am – 12:00pm

Room: Salon des Saisons

Blind Men and an Elephant: Thoughts on an Amorphous Profession

> *People have been programming computers for less than a century–which might be why we don't know much about what we're doing, and why we keep comparing our field to others. I'll share some thoughts on what the discipline of computer programming can take from other fields such as math, engineering, writing, law, and politics. I'll also discuss the implications of such similarities on how we do our jobs, and how we conceive of our careers.*

About Francis:

Francis Hwang is a writer, artist and software engineer. An active member of the Ruby community, he founded Ruby-NYC in 2003, helps organize the annual Gotham Ruby Conference, and is currently a software engineer at Diversion Media. His writing on technology and culture has appeared in Spin, Wired, ArtByte, and FEED Magazine. His artwork has received press coverage in Wired News, Art in America, and Liberátion (France).

Keynote Speaker: Giles Bowkett

Evil Genius

Time: Day 2, Fri. January 23
3:15pm – 4:15pm

Room: Salon des Saisons

Archaeopteryx: A Ruby MIDI Generator

> *Evil genius Giles Bowkett built a robot army to eliminate every DJ and VJ in the world. These fools are doomed. Doomed I say. Doomed! Archaeopteryx is an aleatoric semi-autonomous self-playing instrument powered by probability matrices, a custom OOP paradigm implemented in just a few lines of Ruby, strategy patterns, meta-strategy patterns, and more lambdas than you can shake a stick at. That robot is one funky mother - shut your mouth! Just talking about Archaeopteryx.*

About Giles:

Giles Bowkett's programming blog is well-read in the Ruby community and occasionally gets 10,000-visit days. He has worked with Perl, PHP, Python, Java, JavaScript, ActionScript – all the usual suspects – and now spends nearly all his time coding Ruby. He's worked on the streaming video site Hulu and contributed a patch to Rubinius, he has a recipe in the upcoming "Advanced Rails Recipes" book, he's speaking at five conferences in three countries in 2008, he regularly checks in code before 8am on Saturdays, he kind of needs to get a life, and between December and February 2007-2008 he released 9 open source projects (with more coming). Giles studies acting with the same feverish intensity he applies to programming. He also practices meditation, which, when you consider everything else, is probably a good idea.

Keynote Speaker: Avi Bryant

Co-founder, Dabble DB

Time: Day 3, Sat. January 24
10am – 11am

Room: Salon des Saisons

Bad Hackers Copy, Great Hackers Steal

TBA.

About Avi:

Avi Bryant is the co-founder of Dabble DB, a venture-backed startup based in Vancouver, BC. He's also the creator of the Seaside web framework, and has given keynotes at RailsConf, Smalltalk Solutions, and elsewhere about his unusual - some say heretical - approaches to web development.

Keynote Speaker: Richard Stallman

Founder, GNU operating system

Time: Day 3, Sat. January 24
1:30pm – 2:30pm

Room: Salon des Saisons

Copyright vs. Community in the Age of Computer Networks

> *Copyright developed in the age of the printing press, and was designed to fit with the system of centralized copying imposed by the printing press. But the copyright system does not fit well with computer networks, and only draconian punishments can enforce it. The global corporations that profit from copyright are lobbying for draconian punishments, and to increase their copyright powers, while suppressing public access to technology. But if we seriously hope to serve the only legitimate purpose of copyright–to promote progress, for the benefit of the public–then we must make changes in the other direction.*

About Richard:

Richard Stallman launched the development of the GNU operating system (see www.gnu.org) in 1984. GNU is free software: everyone has the freedom to copy it and redistribute it, as well as to make changes either large or small. The GNU/Linux system, basically the GNU operating system with Linux added, is used on tens of millions of computers today. Stallman has received the ACM Grace Hopper Award, a MacArthur Foundation fellowship, the Electronic Frontier Foundation's Pioneer award, and the Takeda Award for Social/Economic Betterment, as well as several honorary doctorates.

Corporate Speaker: Jói Sigurðsson

Google

Time: Day 1, Thurs. January 22
11:15am – 12:00pm

Room: RIM Room (Pierre de Coubertin)

Mass-market Client Software

Software installed by huge numbers of users in a very diverse hardware and software environment exhibits problems that you don't otherwise see, and that you need new approaches to deal with. We'll learn about some of these challenges, how they can be met through automation of testing, gathering diagnostic information from the field, building in the ability to rapidly update installations, and more.

About Jói:

Jói Sigurðsson is the tech lead for Google Desktop for Windows and has taken on various technical leadership roles on the project over the last four years. Before joining Google, Jói held positions, including CTO and co-founder and project lead, at companies ranging from wireless applications to Windows security software to personalization agents. His experience places him in a unique position to focus on what's in store for the future of the desktop and its role within the cloud computing architecture, for users and developers alike. Jói studied computer engineering at the University of Iceland.

Corporate Speaker: Marty Algire

Radialpoint

Time: Day 1, Thurs. January 22
11:15am – 12:00pm

Room: Salon des Saisons

Having your Stock Options and Eating too: How to Start a Career in Tech

Reminiscences and illustrations of an excursion in Canada's hottest software startup in the summer of 1999; with memoranda on the dilemma of innovation and how to evaluate start-up opportunities versus opportunities at larger companies. This talk will demonstrate how the innovator's dilemma will have a bigger impact on new grads careers than other, seemingly more obvious, factors like starting salary or company brand recognition.

About Marty:

Marty Algire is responsible for product management and software development at Radialpoint. He brings over a decade of experience in marketing Internet applications, product management and enterprise software development. Marty previously directed the development of the world's first Pseudonymous Communications Infrastructure for the Internet, which was selected at Demo '99, and won PC World's "Internet Newcomer of the Year" award. Marty is a frequent participant at industry events, most recently speaking at the Telco 2.0 Industry Brainstorm in London.

Corporate Speaker: Joey deVilla

Microsoft

Time: Day 2, Fri. January 23
4:30pm – 5:15pm

Room: Salon des Saisons

Squeezeboxes, Start-Ups and Selling Out: A Tech Evangelist's Story

You'll spend anywhere from a third to half (or more) of your waking life at work, so why not enjoy it? That's the philosophy of Microsoft Developer Evangelist Joey deVilla, who's had fun while paying the rent. He'll talk about his career path, which includes coding in cafes, getting hired through your blog, learning Python at Burning Man, messy office romances, go-go dancing, leading an office coup against his manager, interviewing at a porn company and using his accordion to make a Microsoft Vice President run away in fear. There will be stories, career advice and yes, a rock and roll accordion number or two.

About Joey:

Developer Evangelist for Microsoft in Toronto, rock and roll accordion player, Thrilla from Manila, all-round bon vivant."

Academic Speaker: Jörg Kienzle

Associate Professor, McGill University

Time: Day 2, Fri. January 23
10:00am – 10:45am

Room: RIM Room (Pierre de Coubertin)

Aspect-Oriented Multi-View Modeling

Multi-view modeling allows a developer to describe a software system from multiple points of view, e.g. structural and behavioral, using different modeling notations. Unfortunately, models of complex applications tend to get very big, to a point where even the individual views are not readable anymore. Recently, aspect-orientation has been proposed by the software engineering research community as a new technique of modularization, leading to better separation of concerns within software engineering artifacts such as source code or models. This talk shows how aspect-oriented ideas can successfully be applied in a multi-view modeling context to reduce the size of individual models. After introducing the ideas of aspect-orientation and reviewing the challenges in multi-view modeling, an overview of the Reusable Aspect Models approach (RAM) is presented. RAM aspect models support the modeling of structure (using UML class diagrams) and behavior (using UML state and sequence diagrams).

RAM supports aspect dependency chains, which allows an aspect providing complex functionality to reuse the functionality provided by other aspects. The RAM weaver can create woven views of the composed model for debugging, simulation or code generation purpose, as well as perform consistency checks during the weaving and on the woven model to detect inconsistencies of the composition.

About Jörg:

Jörg Kienzle is an associate professor in Computer Science at McGill University, Montreal, Canada, where he is leading the software engineering laboratory. He holds a Ph.D. and engineering diploma from the Swiss Federal Institute of Technology (EPFL) in Lausanne. His current research interests include fault tolerance, software development methods, and aspect-orientation.

Academic Speaker: Steve Easterbrook

Professor, University of Toronto

Time: Day 2, Fri. January 23
10:00am – 10:45am

Room: Salon des Saisons

The Role of Software Engineering in Understanding Climate Change

TBA.

About Steve:

Steve Easterbrook is a professor of computer science at the University of Toronto. He has a BSc in Computer Science from the University of York (the one in the UK) and a Ph.D. in Computing from Imperial College in London (UK, again). In 1995 he moved to the US to lead the research team at NASA´s Independent Verification and Validation (IV&V) Facility in West Virginia, where he investigated software verification on the Space Shuttle Flight Software, the International Space Station, the Earth Observation System, and Cassini. He moved to the University of Toronto in 1999. His research interests range from modelling and analysis of complex software software systems to the socio-cognitive aspects of team interaction, including communication, coordination, and shared understanding in large software teams. In 2008, he was a visiting scientist at the Hadley Centre for Climate Prediction and Research at the Met Office in Exeter, UK.

Academic Speaker: Caitlin Kelleher

Assistant Professor, Washington University in St. Louis

Time: Day 3, Sat. January 24
10:00am – 10:45am

Room: RIM Room (Pierre de Coubertin)

The Development of Storytelling Alice

There has long been an implicit assumption within the computer science community that if we can make the process of learning to program easier for people, we will attract a larger and broader audience of people into computer science. Certainly building supportive programming environments is necessary in order to bring more people to computer science. But, it is not sufficient. In this talk, I will describe the development of Storytelling Alice, a programming environment that gives middle school girls a positive first experience with computer programming. Rather than presenting programming as an end in itself, Storytelling Alice presents programming as a means to the end of storytelling, a motivating activity for a broad spectrum of middle school girls. The storytelling focus makes programming more compelling to middle school girls. Storytelling Alice users spent 42% more time programming than users of a generic version of Alice. Further, Storytelling Alice users were more than three times as likely to sneak extra time to continue working on their programs (51% of Storytelling Alice users vs. 16% of Generic Alice users snuck extra time).

While a motivating context for learning computer programming is necessary to increase the number of young students who learn to program, it is not sufficient. For many pre-high school students, formal opportunities to learn computer science simply do not exist. We are currently working on a new system called Looking Glass which maintains storytelling as a motivating context and focuses on developing user interface support that enables middle school aged children to easily and effectively teach themselves using programs created by peers. Looking Glass will incorporate tools that enable users to identify sections of peer written programs that interest them and then follow automatically generated tutorials to learn how to create the selected sections of those programs in their own context.

About Caitlin:

Caitlin Kelleher is currently an Assistant Professor of Computer Science at Washington University in St. Louis. She received her bachelor's degree in Computer Science from Virginia Tech and her Ph.D. in Computer Science from Carnegie Mellon University with Professor Randy Pausch. Caitlin's research focuses on developing programming environments that will engage and support a broad spectrum of school aged children in learning to program through constructing animated stories and games.

Academic Speaker: Jonathan Edwards

Research Fellow, MIT Software Design Group

Time: Day 3, Sat. January 24
10:00am – 10:45am

Room: Salon des Saisons

Iconoclasm for fun and profit

In the first part of this talk I will present an experiment in non-textual programming: Schematic Tables, a new representation for conditionals. Roughly a cross between decision tables and data flow graphs, they represent computation and decision-making orthogonally. They unify the full range of conditional constructs, from if statements through pattern matching to polymorphic predicate dispatch. Program logic is maintained in a declarative canonical form that enforces completeness and disjointness among choices. Schematic tables can be used either as a code specification/generation tool, or as a self-contained diagrammatic programming language. They give program logic the clarity of truth tables, and support high-level direct manipulation of that logic, avoiding much of the mental computation demanded by conventional conditionals.

The second part of the talk will look at the prospects for progress in the theory and practice of programming. Contrary to conventional wisdom, programming is still in its infancy. I will argue that the current blockage cannot persist, and point out some of the cracks in the dam. I conclude with some career advice for smart young programmers who want to change the world.

About Jonathan:

Jonathan Edwards founded a software company and developed a specialized database for interbank funds transfer systems, which currently process over a trillion dollars a day. For the crime of building non-standard technology he was sentenced to carry a beeper for twenty years. Having paid his debt to society, he now masquerades as a computer scientist, plotting an escape from the current dead-end of programming technology. His work on the Subtext language has explored the benefits of representing programs with more appropriate data structures than text strings, reviving the old idea of Visual Programming in a new form. He is currently trying to revive Data Flow programming. Like other mad scientists who revive dead things, he plans to take over the world.

Tutorial: Colin Smillie (Developing for Facebook)

Time: Day 2, Fri January 23
9:00am – 9:45am

Room: RIM Room (Pierre de Coubertin)

Developing for the Facebook Platform

> *Developing for the Facebook Platform using the Facebook API, FBML, FBJS and FQL. Discussion will focus on Facebook Applications and the Facebook Connection platform with an overview of the Facebook Platform Architecture and Design.*

http://www.refreshpartners.com/

Tutorial: James Golick (Dynamic Languages)

Time: Day 2, Fri. January 23
9:00am – 9:45am

Room: Salon des Saisons

Storming the Java Bastille: a political introduction to dynamic languages

> *Working with rigid, static languages is like living in a communist dictatorship. Your freedom is extremely limited, there's a lot of bureaucracy, and it's often painful.*
>
> *Working with dynamic languages, by contrast, is like living under libertarian rule. The government is small and doesn't like to make decisions on your behalf. They provide you a lot of freedom and leave it up to the community to decide how best to do things. But, with great power comes great responsibility. Dynamic languages are like a chainsaw: powerful, but watch out for your extremities.*
>
> *In this code-heavy session, we'll take a look at the pros and cons of both styles, hopefully without losing any limbs.*

http://jamesgolick.com/

Tutorial: Mark Pavlidis (iPhone development)

iPhone Developer

Time: Day 3, Sat. January 24
9:00am – 9:45am

Room: Salon des Saisons

http://mark.pavlidis.org/

Special Events: Day 1

IBM Case Study Programming Competition

Time: Thursday, January 22 @ 4:30pm - 6:30pm
Room: Salon des Saisons

We want to see how you can think outside the cubicle, so we've come up with a programming challenge for you to show us what you've got. Show up Thursday afternoon to find out what the problem is, and see how much of it you can solve in two hours. Bring your creativity, skills, intuition, and of course your laptop! Winners will be announced Saturday during the Closing Remarks. You can get more information at the IBM booth during the career fair.

CUSEC 2009 Pub Night

Time: Thursday, January 22 @ 9pm
Location: Benelux Brasserie (see map, pg. 1 of proceedings)

It's everyone's favourite part of CUSEC! The annual pub night gives you the chance to mingle and network with speakers, sponsors, organizers and your fellow delegates from all over Canada. So come on over, grab a pint of delicious locally-brewed beer and make some new friends!

Special Events: Day 2

E.A. Montreal Studio Tour

Time: Friday, January 23 @ 12pm
Sign-up: Registration Desk! First 20 delegates only.

Electronic Arts Montreal has offered to give a tour of their development studio to CUSEC 2009 delegates! The EA Tour will be limited to 20 delegates, on a first-come first-serve basis. If you want to attend the EA tour, you will have to sign up at the CUSEC 2009 Registration desk. *Registration for the EA Tour will begin at 2pm on Thursday, January 22.* The first 20 delegates to sign up will get to go on the tour. The tour itself will take place Friday, January 23 at 12pm. Delegates will walk in a group from the conference centre to the EA studio (about 8 minutes).

DemoCampCUSEC3

Time: Friday, January 23 @ 6:30pm
Sign-up: Registration Desk (limit: 5 to 6 demos)
Room: Salon des Saisons

Have a cool project that you want to show off? Of course you do! DemoCampCUSEC is an annual event where anyone can show off their stuff. There are only two rules for presenters:

- Rule #1: No powerpoints allowed. Why no .ppt? Well, do you have working software or don't you?
- Rule #2: Demos are not a second over 15 minutes each. Short and sweet!

The purpose of a DemoCamp is to get feedback, constructive criticism and praise from other developers. Anyone can attend DemoCamp, whether they're CUSEC delegates or not. So you could be showing off your project to some totally new people.

If you want to present at DemoCampCUSEC3, talk to an organizer at the Registration Desk to make sure there is still room. We only have the time for 5-6 demos so you'll have to sign up in advance!