Lorne McIntosh
Software Developer

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profile / summary

Lorne McIntosh is a software developer and computer scientist with strong skills in web, database, network and computer graphics technologies. Lorne is a self-motivated and independent worker with excellent communication, technical writing and teamwork skills. He is currently seeking software development work in Vancouver, Canada.

skills

Languages:	C#, Java, JSP, Python, C++, SQL, PHP, Javascript, XSLT, HTML, CSS
Relevant APIs:	.NET Framework 4.5, ADO.NET, WCF, Entity Framework, LINQ, Java Class Library, log4j, JUnit, JDBC, JPA and Hibernate, JAX-RS, jQuery
Software:	Windows 7, Debian Linux, MS Visual Studio 2012, Netbeans IDE, IIS, SQL Server 2012, SSIS, Apache Web Server, Tomcat and GlassFish servers, MySQL, SVN, Git, TFS, CMake, Maven, VMware Server & Workstation, WireShark, Chrome Developer Tools, Mathematica, Adobe Flash, LaTeX, MS Office 2013 (Outlook, Word, Excel, Powerpoint, Access)

work experience

Absolute Software	www.absolute.com	Vancouver, Canada	Mar. 2015–present (0 y 5 mo)

Software Developer

Duties include on-going design, development and support of the applications that the Business Application team is responsible for. These enterprise systems include Order Processing (ORP), License Management, Customer Relationship Management (CRM), Marketing Automation, Microsoft SharePoint (SP), and Business Intelligence (BI), as well as the integrations between them.

Aptean	www.aptean.com	Vancouver, Canada	Jul. 2013–Feb. 2015 (1 y 8 mo)

Application Developer

Duties primarily include the design, development and documentation of enhancements to Aptean's business systems. I was deeply involved in the development of the new Aptean customer support portal, including the creation of a redesigned ticket management system with an AJAX-powered 'Advanced Search' interface. I also refactored our design to reduce code duplication, cut the load time for several critical areas of the portal in half, and resolved a variety of browser compatibility and rendering problems (Java, JSP, Javascript, AJAX, Tomcat, Apache Ant, SVN). In another project, I created a robust and extensible integration between Pivotal CRM and Eloqua Marketing Automation that performs a bi-directional sync of company, contact, and marketing campaign records. It has operated flawlessly for the last 6 months, often handling hundreds of updates per day (C#, ADO.NET, REST, JSON, TFS).

Ubiq Visuals	ubiqvisuals.com	Vancouver, Canada	Mar. 2008–present (6 y 11 mo)

Technical Director / Lead Programmer

Co-founded Ubiq Visuals and served as Technical Director and Lead Programmer. Duties included the establishment of our technical strategy (selecting hardware and software platforms, pipelines and tools), administrating our network and virtualized (VMware) Windows servers and desktops, interviewing candidates for development positions, and leading a small team in the design, development and documentation of several videogame-related software products (C++, GLSL, HLSL). We continue to operate Ubiq in our free time, but have largely moved onto other endeavors.

CDC Software	www.cdcsoftware.com	Vancouver, Canada	Jan. 2007–Mar. 2008 (1 y 3 mo)

Application Developer

> Primary duties included the design, development and documentation of customizations to the company's Pivotal CRM implementation (VB, SQL Server, IIS) and corporate Intranet (SQL Server, IIS, ASP, ASP .NET, XSLT, HTML, CSS, Javascript). I was also the developer of a flexible ETL database migration tool (C# .NET and SQL Server Integration Services) that was used to efficiently clean and import sales databases from recently acquired companies, and an integration project (C# .NET, XML, XSLT) to connect Google Search Appliances with the 'Pivotal eService' web portal. I left CDC to pursue my MSc. at SFU and start Ubiq Visuals.

Pivotal	www.pivotal.com	Vancouver, Canada	May 2005–Dec. 2005 (8 mo)

Systems Analyst / Web Developer

> Employed on an 8-month co-op term in Pivotal's IT Applications department as a Systems Analyst / Web Developer. Primary duties included the creation and maintenance of email marketing campaigns, registration forms, and websites. In time my role was expanded to include work in ASP, Javascript and SQL on the corporate Intranet, and ultimately the lead-development role in a Flash-based product-demo project (AS2, XML).

Simon Fraser University	www.surrey.sfu.ca	Vancouver, Canada	2004–2005 (1 y)

Course Developer / Instructor

> Developed and delivered a series of videogame programming courses for high-school students. Duties included planning course content, writing tutorials, developing course websites, coordinating with and briefing management, and delivering courses to classes of 15–20 students.

education

Simon Fraser University	www.siat.sfu.ca/grad/	Vancouver, Canada	Jan. 2009–Sep. 2011

MSc. in Interactive Arts and Technology

> Achieved a 96% cumulative average in my coursework. Relevant courses included Quantitative and Qualitative Research Methods, Research Writing, and Artificial Intelligence.

> Successfully defended my thesis on the topic of Spacetime Control (constrained non-linear optimization) and Motion Graphs for the procedural animation of videogame characters (see the thesis and a summary video). My working prototype (C++, Python) demonstrated the automatic generation of hundreds of physically-realistic animations. A Motion Graph technique automatically produced smooth, continuous playback of these animations in a real-time game engine.

> Was selected by The School of Interactive Arts & Technology as a nominee for the WAGS Distinguished Master's Thesis Award.

Simon Fraser University	www.siat.sfu.ca	Vancouver, Canada	Sep. 2002–Dec. 2006

BSc. in Information Technology

> Completed a 4-year BSc. Information Technology program that taught object-oriented software engineering and development (including UML, design patterns, and SDLCs), hardware and operating system theory, computer graphics and multimedia, networking, web and database technologies, computer security, project management, and communication skills.

publications

- **McIntosh, L.**, Riecke, B. E., & DiPaola, S. (2012). Efficiently Simulating the Bokeh of Polygonal Apertures in a Post-Process Depth of Field Shader. Computer Graphics Forum, 31(6), 1810–1822. doi:10.1111/j.1467-8659.2012.02097.x   View online

references

Available upon request.