SANDRA KÜPFER

9-423 Westwood Drive | Kitchener, ON N2M 5B5 | (519) 573-8255 | kupfer.sandra@gmail.com

PROFILE

I am an accomplished software developer with 15 years of full stack development experience. In early 2019 I took some time off to focus on my family and health. To sharpen my skills and learn new ones, I started a full-time web development program in September 2020. I am excited to return to work when I complete my program in August 2021.

TECHNICAL SKILLS

- Web: HTML5, Javascript, CSS, XML, C#, PHP, ASP .NET, Entity Framework
- Languages: Java, C/C++, Perl, Bash Shell, MySQL
- Tools: Visual Studio, Android Studio, DBeaver, Git, Photoshop, Illustrator, XD, Blender

EXPERIENCE

Software Developer, Hocobo Inc.   July 2013 — Jan 2019

- Was instrumental in the development of a product (Inoculum) designed to add safety and predictability to C++ code.
- Used LLVM to create a pre-compiler tool used to transform regular C++ into code consistent with Inoculum guidelines.
- Created a Windows console application to keep track of work activities for SR&ED claims. Users had the option of using written or audio entries.
- Developed an Android application to display text message content and contact information in a clickable pop-up notification.
- Built an Android application that would allow a phone to stay unlocked while cradled.
- Implemented an application to allow Android phones to communicate with and display data from an IOT device with multiple sensors.
- Set up and maintained a build-and-test framework using Jenkins. Test framework included a unit testing application, automation of Relacy testing, and an LCOV parser.
- Contracted to conduct code reviews of Android applications for an external company.

Software Developer, Self Employed   Aug 2012 — June 2013

- Added features to a customer-facing Eclipse tool for a large semiconductor manufacturer.
- Designed an Android application to generate construction instructions for knitted garments designed by the user.

Software Developer, Research In Motion   Jan 2009 — Aug 2012

- Used Javascript, CSS, and HTML5 to create a UI editor that simplified QML generation for BlackBerry 10.
- Implemented logic in the UI editor to reflect the weighting algorithm for UI components in the BB 10 SDK.
- Created a text styles editor using responsive web design that allowed users to generate and store text styles across an entire project instead of per page.

- Devised an algorithm to detect motion using cell tower signals in order to optimize GPS chip usage, reducing battery consumption by 75%.
- Developed an application to automate turning Bluetooth and WIFI radios on and off based on proximity to user selected locations in order to reduce battery consumption.
- Transformed a digital frame into an eBook reader using BlackBerry APIs to generate and transmit images of text as book pages, allowing the user to use the BlackBerry as a remote control to navigate the pages.
- Used OpenGL ES APIs to create an application to view and modify 3D content on BlackBerry Playbook, including implementing a virtual trackball.

Code Analysis System Administrator, Research In Motion   Oct 2006 — Dec 2008
- Architected, designed, and implemented a system to incorporate static code analysis into the build process for handheld device code.
- Worked with handheld device security team to achieve Coverity certification for BlackBerry Smart Card Reader.

Software Build Specialist, Research In Motion   Sept 2002 — Sept 2003, May 2004 — Oct 2006
- Automated manual build process for all handheld device software using shell scripts.
- Participated in gathering requirements, designing, implementing and documenting a new in-house build system (ABS).
- Wrote scripts to automate generation of build documentation and notification process.
- Worked with IT to research and acquire new hardware to reduce build times by 40%.

EDUCATION

B.Sc, Honours Computer Science, McMaster University, Hamilton, ON   1998 — 2004

Web Development Graduate Certificate, Humber College, Toronto, ON   Sept 2020 — Aug 2021

PATENTS

- Controlling a GPS receiver by detecting motion based on radiofrequency signal transmission
- Mixed video compilation using selection and interspersing components to combine video from at least two videos

ADDITIONAL EXPERIENCE

Volunteer - Producer, Designer, Costumer, St. John Catholic Elementary   Feb 2017 — Present
- Worked with a team to design and create all costumes, props, and set pieces for musicals with 65-85 cast members.
- Produced the 2020 production.

Lunch Hour Supervisor, St. John Catholic Elementary   Jan 2020 — Present
- Supervised elementary school-aged children in a variety of conditions, ensuring their safety and adherence to COVID 19 protocols.

Volunteer - Cashier, Sales Associate, Stock, Mission Thrift Store   Oct 2018 — Aug 2020
- Helped customers complete purchases, including finding requested items and advising on product, promotional, and policy information.

Driver, Hotshot Athletic   Sept 2019 — Mar 2020
- Safely transported children from several different schools to an after-school program.