

Andreas Schilling Brake

Electrical Engineering (Undergraduate Student)

Contact Information:

E-mail : andreas@andreasbrake.ca

Work Eligibility:

Canada, Germany, USA

Other Addresses:

www.github.com/andreasbrake

School and Education

Sept 2011 – **McGill University** Bachelor of Engineering (Electrical)
May 2015 Montreal, QC, Canada

- Past Year GPA – 3.5
- Cumulative GPA – 3.0

Aug 2007 – **Severna Park High School** High School Diploma
Jun 2011 Severna Park, MD, USA

- 4-year Engineering Program: “Project Lead the Way”

Sept 2000 – **German Language Courses** Deutsches Sprachdiplom
May 2011 Potomac, MD, USA

- Level B2/C1

Work Experience

Jun 2014 – **Cruiser Customizing** Livermore, CA, USA
Aug 2014

- Developed and maintained product pages across multiple domains
- Implemented advertising campaigns and performed SEO optimizations

Jun 2013 – **JPMorgan Xign Corp.** Pleasanton, CA, USA
Aug 2013

- Worked on a big data analytics project with the goal of developing a tool to provide insight into usage of the company’s product, the JPMorgan Order-to-Pay network
- Presented the tool to both an architecture review board and company executives

May 2012 – **Erachem Comilog Inc.** New Johnsonville, TN, USA
Aug 2012

- Performed measurements on various points in the manufacturing process to provide data and insight on the current state of the production system
- Designed automated reports using MS Access with a link to a central database
- Updated plant map drawn up using AutoCAD

Skills

Spoken Languages

- English (native), German (fluent), French (basic)

Programming Languages

- JavaScript, Java, Lua, HTML/CSS (proficient)
- SQL, C/C++, Python, VBA/.NET (working knowledge)

Other Tools/Languages

- Git, Bash, VHDL, SPICE, MSOffice

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Relevant Coursework

Final Year Team Design Project

- Our project revolved around software-defined wireless network infrastructure
- Worked on a subsection of a project led by a larger research group at McGill
- My responsibilities included designing and developing the usage of OpenFlow switching elements used in the project, specifically Open vSwitches

Digital Systems Design

- Course based on the design of systems from logical building blocks (AND, OR, NOR) and their physical properties as defined by underlying CMOS technology
- Lab component involved making a calendar clock from an FPGA using VHDL that would take input and display synchronized times and dates on both Earth and Mars

Introduction to Telecommunication Networks

- Course covered internet architectures with a focus on protocols that have been used including TCP/UDP, IP, and IEEE 802.11 standards
- Course project chosen by my team was to develop an Android app that utilized WiFi Direct and mesh network topologies to create a peer-to-peer messaging application

Projects

Computer Game – “Tribute”

- Self-directed project to get familiar with development of large programs
- Minimal usage of libraries and adherence to uniform standards throughout the project
- Multiplayer game with client software being written in C and Lua and a backend server utilizing Node.js and MongoDB to handle client requests and to store world data

Web-app – “Boredgames”

- Users can challenge each other to a variety of board games (primarily chess)
- User accounts are secured using password hashing and frequent authentication
- Server utilizes Node.js to handle logic, Redis to store data, and Socket.io for updates

Competitions

Nov 2014 McGill Code Jam

- Team based competition with a duration of 48 hours
- Goal to develop a facial identification software using machine learning on a given set of data in order to identify an individual (or lack thereof) in a separate photo
- Placed 5th out of over 30 teams

Awards

- AP Scholar with Distinction
 - 8 College Board AP exams with score 4 or 5

References and Transcripts

Supplied upon request