Michael Abbott

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Education

The Ohio State University   August 2013-May 2017
Bachelor of Science: Computer Science and Engineering
- Graduated with Honors in Engineering
- Minor in Business
- Coursework: Data Mining, Parallel Processing, Neural Networks, Databases, Web Applications
- Dean's List

Skills

Programming Languages
- Proficient: Java (9 years), Python (3 years), JavaScript (5 years), Ruby (3 years)
- Preferred: Scala (1 year), C/C++ (5 years), SQL (5 years), .NET (2 years)
- Familiar: PHP, MATLAB, HTML/CSS, BASH

Frameworks
- akka+play+lagom, scikit-learn, Rails, AngularJS+Bootstrap, LibGDX, .NET, CUDA, OpenMP, Flask, Laravel, Android

Work Experience

Capital One   June 2017-Current
Software Engineer   **Scala | AngularJS | AWS**
- Wrote the authorization service for Capital One's data lake, which integrated with LDAP and AWS's RDS
- Created several dynamic and highly modular front-ends for our rapidly changing microservices
- Developed concurrent microservices in scala with akka, play, and lagom for managing access to Capital One's data lake of tens of thousands of datasets containing terabytes or petabytes of sensitive data, used by tens of thousands of users
- Created a proof of concept for credit card fraud detection with a machine learning model and real, anonymized data

The Ohio State University   August 2015-May 2017
Teaching Assistant   **JS | Ruby on Rails**
- CSE 2221: Software Components
  - In addition to assisting with lab and helping students during office hours, graded over 300 individual java projects
- CSE 3901: Web Application Design, Development, and Documentation
  - Graded group websites, website scrapers, and web apps written in Rails that determined 40% of the final grade

Battelle Memorial Institute   May 2016-August 2016
Software Development Co-op   **AngularJS | Flask | SQL**
- Helped develop the leading anti-counterfeiting technology on the market for integrated circuits
- Created a RESTful backend service over a SQL Server database and integration points for our machine learning scripts
- Developed a dynamic web interface in AngularJS for displaying and comparing the results of the machine learning scripts

Siemens PLM Software   January 2015-August 2015
Software Development Co-op   **Java | .NET**
- Reduced the run time for a legacy .NET application by over 99%, from over 40 minutes to under 5 seconds
- Automated and streamlined 40% of my dyslexic product manager's job, reducing most of it down to a series of dropdowns
- Halved the number of server calls being made by an important GWT widget while also increasing its functionality; users in Japan no longer had to wait 2 minutes for a webpage to load

Projects

Warren Buffett 9000   Spring 2017-Current
- An experimental algorithmic stock trading project   **scikit-learn**
- Uses a set of 125 support vector machines trained on several decades of data derived from feature engineering with fundamental analysis, technical analysis, and macro-economics

ShellPharm   January 2017-May 2017
Founder & Chief Executive Officer   **AWS | C | BASH**
- Successfully negotiated a venture capital deal with Lumos Innovation, doubling ShellPharm's evaluation to $400,000
- Designed and implemented a cybersecurity product that offered more convenient and commoditized concolic execution of executable files by leveraging AWS EC2 instances

CloudScape Videogame   April 2014-Fall 2016
- A turn-based cross-platform strategy game written with LibGDX   **Java | Ruby on Rails | SQL**
- Published to the Google Play Store
- Available for desktop here: http://cloudscape.site/
- Players can create their own levels in game and play against the artificial intelligence