Tyler Roberts

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Summary

Enthusiastic computer engineer with 4+ years experience in software development and design. Most recently I've had the opportunity to work at a startup which has allowed me to take on many responsibilities and force me out of my comfort zone. I work with languages and technologies that were initially unfamiliar to me, such as Scala, Guice dependency injection, Amazon Web Services, Kafka and Redis. The startup environment has provided me with the opportunity to work on various code bases, across several teams, supporting an extensive list of technologies. I am currently seeking new opportunities to apply my skills and experience to work on projects that I can be passionate about, and be apart of a team with similar ideologies.

<u>Computer Skills</u> - Python, Java, Scala, C++, C, Linux, Git, Bash, Verilog, SystemVerilog.

Experience

Dataminr, New York, NY   September 2018 - February 2019
Software Engineer, Content Search
- Dataminr is a real time information discovery company. We detect critical events and breaking information from social media, with Twitter being our largest data source.
- I help develop the tools used to search and filter through the massive Twitter pipeline and other media sources.
- JVM code base comprised of Scala and Java. Our applications run with the use of Amazon's AWS S3. It utilizes Apache Kafka and Amazon Kinesis for processing the large data sources.
- Migrated Pastebin data source from Kinesis to Kafka. Required work on multiple code bases belonging to other teams.
- *Tools & Technologies: Scala 2.11, Java 8, Docker, Kafka, Kinesis, Redis, Google Guice, JIRA, Git/Gitlab, IntelliJ, MacOS.*

IBM Corporation, Yorktown Heights, NY   July 2017 - August 2018
Software Developer, Watson Health Cloud
- Increased test case coverage from 30% to 90% using Python unit tests since joining the team.
- Developed Python application on another team that moved their locally stored data and user accounts to Bluemix, IBM's cloud platform as a service.
- Designed and engineered a web application from the ground up using HTML, CSS, Angular, and Bootstrap. Responsible for the front-end, including page navigation using a MVC pattern. Worked closely with two others as they developed the other layers of the application.
- *Tools & Technologies: Python (2.7), Docker, HTML, Angular, Javascript, Linux, PyCharm, MacOS.*

UW-Madison Plasma Physics Dept., Madison, WI   Jan. 2016 - May 2017
Scientific Programmer
- Inherited former Ph.D. candidate's Python application, and enhanced it to communicate with additional instrumentation added to the experiment.
- Wrote new code to parse binary data recorded from experiments, and store it to a database.
- Wrote a GUI using tkinter to improve productivity for the team as they used the application for their research.
- Collaborated extensively with scientists and professors to deliver a fully functional application for their research.
- Organized and taught Python tutorials for graduate students, professors, and scientists unfamiliar with Python and OOP.
- *Tools & Technologies: Python (2.7), C++, Matlab, MacOS, Linux.*

Intel Corporation, Hillsboro, OR   May 2016 - Aug. 2016
Pre-Silicon Validation Engineering Intern
- Improved debug tool by creating my own checkers and algorithms that were used to validate the SoC architecture. My improvements were able to detect and isolate several bugs found within the design.
- Developed Python modules in large code base for validation teams to share key architectural, test and debug knowledge.
- Enhanced a validation tool by developing features that created easy debug for members of the design team. Managed to increase the productivity of the developers and validators as well as save time for the company.
- Collaborated with several teams within DDG to determine the best way to provide feedback in the debugging process.
- *Tools & Technologies: Python (3.4), Perl, SystemVerilog, OVM/UVM, Unix.*

Education

B.S. Computer Engineering, Computer Science, & Mathematics with Physics Certificate (minor).
University of Wisconsin - Madison, May 2017