

Tyler Roberts

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Summary

Enthusiastic computer engineer with 4+ years experience in software development and design. Extensive work with Python, including the improvement of an application used in cutting edge scientific research at the University of Wisconsin - Madison, the development of an application that efficiently crawled through Micron's documentation and translated language syntax, and broad work with the SciPy package within academia. Considerable development with C and C++ in embedded systems and lower level programming, as well as exposure to computer architecture and circuit design. Very interested in systems and how they all interact with one another.

Computer Skills - Python, Java, C++, C, Linux, Git, Bash, Verilog, SystemVerilog, Matlab.

Experience

Dataminr, New York, NY

September 2018 - Present

Software Engineer

- I work on the backend engineering content team. Creating the tools and systems used for the filtering and searching of large data sources, such as Twitter, to bring real time alerts to our clients.
- *Tools & Technologies:* Java 8, Scala 2.11, Docker, JIRA, Agile/Scrum, 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.
- Used Docker to rigorously test the deployment of the web application onto a server.
- *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.

Micron Technology, Longmont, CO

May 2015 - Aug. 2015

Product Validation Engineering Intern

Education

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