

Aaron Barber

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5551 Adderstone Drive, Clarkston, MI 48346

Education

University of Michigan, Ann Arbor MI

Fall 2013 – Current

- ▶ M.S.E in Computer Science Engineering, Expected April 2017
- ▶ B.S.E in Computer Science Engineering, April 2016
 - ▶ GPA: 3.95/4.00
 - ▶ Coursework: Adv. Computer Security, Software Engineering, Operating Systems, Web Databases & Information Systems, Artificial Intelligence, Data Structures and Algorithms, Technical Communications

Work Experience

Yahoo!

Sunnyvale, CA

Software Engineering Intern, Yahoo! Mail Backend

May 2016 – August 2016

- ▶ Created an HTTPS proxy to securely deliver HTTP images embedded in an email
- ▶ Performed memory efficient HTML parsing to replace URIs while displaying and saving emails
- ▶ Learned integration testing, performance monitoring, and remote debugging using Eclipse

Aegis Public Safety Software, New World Systems

Troy, MI

Solution Consulting Intern

May 2015 – August 2015

- ▶ Developed Cordova mobile application to let police officers enter field investigation data from mobile devices
- ▶ Designed and implemented the user-interface and mobile hardware features (driver's license scanning, camera)
- ▶ Created .NET API and database, with integration testing, to store/access the field investigation information

Facility of Rare Isotope Beams (FRIB), Michigan State University

Lansing, MI

Controls and Computing Technical Aide

May 2014 – August 2014

- ▶ Developed a Java library for physicists and controls engineers to convert between physics data types using JSON
- ▶ Supported existing libraries from several universities to standardize metadata with scalars, arrays, and tables

Research Experience

Data Integration In Real Time, University of Michigan

Winter 2015

- ▶ Rewrote Java service library to wrap functions into providers to allow synchronous and asynchronous execution
- ▶ Maintained and refactored existing documentation for developers and users

Graphene, University of Michigan

Fall 2013 – Winter 2014

- ▶ Created sparkline and multi-line graphs to render in twenty milliseconds for Java real-time graphing library
- ▶ Wrote a performance analysis suite with user-interface to ensure real-time compatibility for graph rendering

Project Experience

Network File Server, Team

Fall 2015

- ▶ Implemented a multi-threaded, secure network file server which clients interact with via network messages
- ▶ Developed CRUD API for the file system, executed as remote procedure calls over C++ sockets

MHacks V, Team

Winter 2015

- ▶ Developed application to share financial data (Capital One, Venmo) after physical handshakes between users
- ▶ Used Myo bands to detect handshake and Google Glass as the user interface with voice commands

Course Scheduler, Individual

Fall 2013

- ▶ Developed a Java course scheduling application to permute all schedules based on a set of classes
- ▶ Enabled sorting of schedules by various properties such as most compact or most days without class

Computer Skills & Honors

- ▶ **Primary Languages:** AngularJS, C++, C#, HTML, Java, Javascript, Python, SQL
- ▶ **Secondary Languages:** C, CSS, LaTeX, MATLAB, Prolog, Visual Basic
- ▶ **Tools:** Git, JIRA, PhoneGap, Postman, SEQUEL, SPSS Statistics, Specflow, Team Foundation Server, Unity, Unix
- ▶ **Honors:** Eta Kappa Nu | James B. Angell Scholar | Dean's List | MHacks V "Most Technically Challenging"
- ▶ **Interesting Facts:** Graduated with a B.S.E in three years | Have held seven programming jobs