

Jacob Stuart

Software Engineering Intern

Contact

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Technical Skills

Java, C/C++,
Android Development,
Linux Kernel,
Git Source Control,
SQL, Node.js

Education

2014–Now **Bachelor of Science - Computer Science** (3.6/4.0) Purdue University
Minor in Management
• Expected May 2017
• Dean's List

Experience

2015–Now **Scientific Applications Developer** Rosen Center for Advanced Computing
Architecting tools used in the maintenance and operation of Purdue's High Performance Computing resources.
• Software Package Maintenance
• Kernel Optimization
• Quality Assurance and Trouble-Shooting

2015–Now **Undergraduate TA** CS190 (Tools and Resources)
Instructing students on advanced techniques regarding shells, advanced editors, source control, and debugging.

Projects

Ongoing **Linux Kernel Development** Kernel C
Designing and integrating various modules and drivers into the Linux Kernel and utilized advanced Kernel compilation techniques.
• Investigating the sending of git patches in plain text
• Generating pseudo Linux Kernel Mailing List interactions

Ongoing **Tapzu** Android Application
Formulating advanced content aggregation front end. Exploiting advanced Android patterns such as MVVM and databinding.
• Devised asynchronous fetchings in RxJava
• Cultivated 500 active users on Google Play

May 2015 **Radio 91x** Android Application
Reverse engineered a closed streaming API into an Android application designed to stream music in the background with song history and favorites.
• Constructed foreground service with IBinder communication
• Devised SQLITE backend

June 2015 **Push Torrent** Node.js Server Application
Developed nonblocking server application to observe a websocket and intelligently download links.
• Implements websockets
• Incorporated Gzip support

April 2015 **IRC Client** C++ with GTK GUI
Reimplemented server and client of the IRC specification.
• Integrated GTK GUI
• Wrote featureful C Networking