Julius Alexander IV

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education

Rensselaer Polytechnic Institute – Troy, NY *2012–2016*

- Graduated magna cum laude with a dual degree in Computer Science and Computer & Systems Eng.
- Completed courses in Data Structures, Cryptography & Network Security, Machine Learning, Signals & Systems, Embedded Control, Algorithms, Computer Architecture, Operating Systems, Quantum Physics, Programming Languages, Analog Electronics

experience

Google, Chrome – Los Angeles, CA *May 2015–August 2015*

- Rebuilt Chrome's spellchecking system to use multiple languages simultaneously, fulfilling one of its oldest feature requests estimated to impact millions of users
- Facilitated and implemented a UI review for the Chrome settings page and right-click menu

Google, Cloud Security – Kirkland, WA *May 2014–August 2014*

- Developed a Python fuzzer to break MySQL instances and aggregate information relevant to the cause of the crashes
- Learned multiple internal technologies such as source control, build tools, and testing frameworks

State Farm Insurance – Bloomington, IL *May 2013–August 2013*

- Wrote an Excel macro to gather and consolidate information from several databases
- Formulated requirements and built a prototype for a future tool to centralize team-relevant data

projects & skills

- *Identitie* – Winning Hack Upstate 2013 entry for client-side two-factor auth using a Chrome extension, iPhone app, and Node.js server
- *Visual Logic Circuits* – Input/output system that renders and displays "visual logic circuits"
- *VGA Output* – VGA protocol implementation that draws shapes and patterns on a monitor using a C8051 microcontroller
- *Avoclock'o* – Start-to-finish design process of a persistent personal alarm system utilizing an Android app, Arduino, and Bluetooth
- *Sprawl* – Winning Hack Upstate 2014 entry that "distributes" the internet by utilizing the bit torrent protocol in-browser with a Chrome extension and Go key-value server
- *Geosnap* – Android Camp 2013 app using the Google Maps API, camera, and Location Services
- *Cranium.css* – Machine learning CSS framework written in Go and Python
- *GE Maintenance Time Predictor* – Android app and Django server system for predicting and tracking GE wind turbine maintenance times, utilizing Location Services and Chart.js
- Three years experience with *Python*, two with *C++* and *Java*, one and a half years experience with *HTML*, *CSS*, and *Javascript*, proficient with *Linux/Unix-like systems*, *Git*, *Android development*, competent in *Haskell*, *Go*, *Scala*, and *Elm*

activities

- *ΛXA*, Webmaster, Executive Committee Standards Chair *2013–Present*
- *Rensselaer TALKS*, Committee Chair and Founding Member *2013–Present*
- *ΥΠΕ*, Computer Science Honor Society *2015–Present*
- *HKN*, Electrical & Computer Engineering Honor Society *2013–Present*
- *Racquetball Club* *2012–Present*
- *Computer Science I Programming Mentor* *2014–2015*