Charles Julian Knight

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http://github.com/rabidaudio

Education

Fall 2012 - Spring 2015	B.S. Electrical Engineering	Georgia Institute of Technology
Fall 2009 - Spring 2012	B.A. Dual-Degree Program	Berry College

Technical skills

Programming — Familiar with:

- Javascript (Node, Backbone)
- Embedded C/C++
- PHP
- Python
- Ruby
- Perl

Projects

Wki.pe

URL shortener for Wikipedia articles. Started as an early foray into databases. Single-page web app with PHP backend. Learned git, SEO techniques, adaptive HTML5. Brushed up on CSS, jQuery, SQL. Source code on GitHub.

Autonomous Hot Air Balloon

Designed a hot air balloon for the Berry College Physics department for purposes of high-altitude experiments; used physical models to calculate dimensions and other parameters to meet budget and project requirements; sewed over 200 yards of ripstop nylon into a 25 ft. wide, 30 ft. tall envelope; learned welding and other metalworking skills creating a burner.

Car Music Player

Raspberry Pi MP3 player embedded into my dashboard. Wrote player application from scratch in Node.js; wired Arduino I/O board with RS232 interface to Pi; learned Node streams, serial communication.

More projects and information on my blog: http://blog.rabidaudio.com

Organizations

Spring 2014 - Present **Startup Exchange**

Organizer   *Student organization to foster entrepreneurship and hacker culture on campus. Co-led the Maker team. Developed and maintained website, taught classes on web development with Ruby on Rails to six students, organized three and attended over a dozen hackathons.*

Employment

May 2014–December 2014	**TechJect, Atlanta, Georgia** Engineering and Development Intern *Developed micro-UAV control app in Android; assisted in design of embedded ARM SoC development board; maintained firmware and kernel drivers for custom Android device; optimized autonomous flight code for UAVs; managed collection of Wordpress sites including e-commerce and customer support sites; set up good coding practices on sites.*
Jan 2014–June 2014	**GetNotes, Atlanta, Georgia** Developer *Joined an Atlanta Ventures-funded startup during their progress through the Flashpoint accelerator at Georgia Tech. Created and implemented features application independently in a rapid development cycle; patched bugs; advised on technologies and company direction; learned rigorous customer discovery processes.*
Sep 2012–Aug 2013	**Norfolk Southern Corporation, Atlanta, Georgia** Co-op, Distributed Systems/AIX. *Wrote automation scripts (perl/shell); worked with diagnostic reporting and resource inventory database; helped manage 10,000 sq. ft. datacenter; developed for and trained coworkers in SharePoint; developed application in Visio for visualizing datacenter layout; tweaked, deployed, and administered DokuWiki server.*
Aug 2009–April 2012	**Berry College Office of Information Technology, Mount Berry, Georgia** Student Supervisor, Technical Support Desk. *Provided technical support for faculty, staff, and students via phone, email, and in person; created and managed service requests and directed departmental calls.*