Cyril "Nick" Engmann

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EDUCATION

The University of Texas at Austin - Bachelor of Science, Electrical Engineering — May 2016
Track: Integrated Circuits & Embedded Systems
Minor: Government

The University of Texas System – Bill Archer Fellow — Spring 2016
Competitively selected for a semester-long Washington, D.C., internship and academic fellowship program

Universidad de Cantabria – Study Abroad — Summer 2014

PROFESSIONAL EXPERIENCE

Circadence – *Systems Architecture Engineer* — September 2018 – Present

- Utilized Software Defined Radio to spawn a custom 4GLTE Basestation. Created an operation GUI to let users forward traffic, track logs, measure signal strength and create Command + Control channels to connected devices.
- Created custom firmware for the ESPKey to improve RFID cards captures from 26 bits to a full 44 bits.
- Engineered a Smart Card reader that captures and stores the credentials of an unknowing user.

Space and Naval Warfare Systems Command (SPAWAR) – *Engineer* — July 2017 – September 2018

- Architected a solution to upgrade the communications platform to support the JAUS protocol on the TALON Explosive Ordnance Disposal Robot, using external embedded devices.
- Wrote a radio command API with 12 different function calls which interface with an embedded modular radio.
- Developed a React/Django application to calculate ROI on Cybersecurity tools for specific environments.

Quod Certamine – *Founder* — June 2016 – June 2017

Founded a small business to provide technical solutions for startups and small businesses. Primary client being:

CURB – *Software/Hardware Engineer:*

- Developed testing programs to manage software provisioning for their manufacturing facility in Dallas Texas that produces over 1,000 units a month
- Engineered a testing environment to produce accurate calibration values for high precision current transformers
- Developed an Amazon Alexa application utilizing their technology to enable verbal interaction

PROJECTS

In-Plants – Hardware/C++ — http://bit.ly/in-plants

- A mesh-networked soil monitoring system for houseplants. Uses Particle Gen 3 boards, installed in a custom enclosure.

Nerf Alexa Home Defense Turret – Hardware/Python/OpenCV — http://bit.ly/nerf-turret

- Uses Amazon Alexa, OpenCV and a two-motor gimbal to find people and shoot them with the Nerf Vulcan toy gun.

CIVIC ENGAGEMENT (LEADERSHIP)

Open San Diego – *Developer Lead/Scribe* — February 2018 – Present

- Helped revitalize local Code for America Brigade, a cohort of volunteer technical activists.
- Project Manager for React/Django application to allow for peer to peer book lending in communities.

Major League Hacking – *Coach* — November 2015 – November 2018

- Help student hackathon organizers from across the country run their hackathons while representing Major League Hacking, the official student hackathon league
- Help students debug code and learn how to operate new hardware/software packages

PROFESSIONAL SKILLS

Programming Languages (in order of familiarity): Python, JavaScript, C/C++, Bash, Java, HTML/CSS, MATLAB, PHP, VBA
Computer: Linux, React, Angular, Git, Visual Studio, cmake, bitbake, LabVIEW, Keil, Microsoft Suite, Android Studio