

# Daniel Chen

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quickbrownfox319.github.io

## EDUCATION

### RUTGERS UNIVERSITY

New Brunswick, NJ  
BS in Electrical & Computer Engineering  
Expected Spring 2018

### TUFTS UNIVERSITY

Medford, MA  
BS in Environmental Engineering  
Graduated Spring 2013

## EXPERIENCE

### LGS INNOVATIONS, Cybersecurity R&D Intern

May 2017 – August 2017, Florham Park, NJ

- Developed a modeling and simulation tool to emulate software defined network infrastructure by integrating network emulators with virtual network elements and virtualization platforms.
- Implemented internal features for a network emulator using the GNS3 REST API and created a wrapper in Python to extend ease of use.

### VERINA CONSULTING GROUP LLC, Environmental Engineer

September 2013 – December 2015, Bridgewater, NJ

- Created a remote telemetry data collection system to monitor a remediation system's effectiveness using microcontrollers and a GPRS module to write data to a Google Docs sheet using Python and bash scripting. This saved the client ~\$20,000/yr in labor-related expenses.
- Engineered a soil vapor extraction and air sparging system that successfully remediated a client site.

## PROJECTS

### IP PHONE VULNERABILITY ANALYSIS

- Penetration tested an IP phone by inspecting hardware components for potential weaknesses and extracting the firmware.
- Extracted binary files from flash memory and converted them into system files using Binwalk in order to disassemble and analyze assembly instructions with Hopper.

### MORGAN STANLEY SPONSOR CHALLENGE WINNER, HackRU

October 2015, Rutgers-New Brunswick, NJ

- Won Morgan Stanley and Google's Best Use of API challenges by developing a speech-to-text/text-to-speech toy companion with three other team members by creating a hardware prototype that would respond to voice commands. (<http://devpost.com/software/karebear>)
- Prototyped with an Arduino, C++, and Python to create a functional demo that used an Arduino API to interact with a smartphone's sensors, allowing it to recognize and respond to voice commands.

### WEB CRAWLER

- Building a web crawler to search sales on promotional websites for deals on school supplies.
- Programmed in Python on a Vagrant VM using beautifulsoup4 and PyQt4 to pull data from Javascript-rendered XML webpages.

## SKILLS

### COMPUTER LANGUAGES

Python    MIPS Assembly  
Java      VHDL  
C/C++    MATLAB

### TECHNOLOGIES

Git      ESXi/Proxmox  
PSPICE    VMWare  
Vagrant    ALU/Cisco CLI

### OPERATING SYSTEMS

Windows  
Linux CentOS/Debian  
Unix

## RELEVANT COURSES

Embedded Systems, Computer Architecture, Data Structures, Digital Signal Processing, Linear Systems and Signals, Digital & Electronic Devices, Intro to Computer Science in C++, Numerical Methods in MATLAB, Virtual Reality

## HONORS

### SPEAKER, EnviroTech Summit 2016

April 2016, Raleigh, NC

Invited to speak at the 2016 EnviroTech Summit on the Internet-of-Things for emerging environmental technologies (<http://envirotechsummit.org/>).