

## Education

### Temple University - College of Engineering

August 2015 - May 2019

- Bachelor of Science in Electrical Engineering
- Concentration in Computer Engineering
- Courses in: Electric Circuits, Digital Circuit Design, Processor Systems, Signals, Linear Algebra, C Programming, Embedded Systems Design, Java, Microelectronics, etc.

## Experience

### Technical & Professional

#### Electrical Engineer - Amtrak

October 2020 - Current

- Working on Positive Train Control (PTC), one of the control systems that prevents unsafe train movement.
- Working mostly with the Advanced Civil Speed Enforcement System (ACSES) variant of PTC.
- Investigating any train operation issues and delays caused by PTC to maintain safe operation and on-time performance.
- Working on design, production, and maintenance of the PTC system onboard locomotives, on the wayside, and in the back-office.
- Some current projects include creating a central system management server, a status monitoring tool for a specific type of field device, and Jupyter notebooks to report wayside and locomotive defects.

#### Management Trainee - Amtrak

June 2019 - October 2020

- Earned engineering, transportation, and mechanical operations and safety qualifications.
- Transportation rotation with Amtrak and MARC services between BAL and WAS, and a Mechanical rotation in Sunnyside Yard, NYC.
- A long-term placement with C&S Communications Engineering department, which manages the telecommunications in offices and the field.
- Managed the maintenance of newly installed Eventide voice recorders used to record essential phone and radio channels, along with training and supporting users.
- Maintenance and troubleshooting issues that arise in telecom infrastructure to keep operations running with minimal downtime and maintain SGR.
- Helped with planning and reviewing designs for upgrades to infrastructure (fiber transport, new services, construction, etc.) at various offices, stations, and along the ROW.

#### Engineering Intern - Amtrak

May 2018 - June 2019

- Work with the Communications & Signals Department (C&S)
- Frequent work in the field with installs, repairs, management, etc. along the Right of Way
- Working with Radio, Networking, Power, and other types of technologies

#### President - TUDev

August 2015 - May 2019

- TUDev is Temple's "hacker" community, a student organization, and a 501(c)(3) educational non-profit organization
- Director of Philly's Local Hack Day, a 12-hour hackathon, which was one of many such events taking place simultaneously at universities around the world. I managed all aspects of planning, such as venues, marketing, budgets, volunteers, safety, sponsorship, etc.

#### Lab Consultant - Temple University

October 2015 - May 2018

- Manage the labs for the Computer Science department
- Troubleshoot software/hardware, and resolve issues for students, faculty, and staff.

#### Teaching Assistant - Temple University

January 2016 - May 2016

- Teaching Assistant for two courses: *Ethical Hacking & Intrusion Forensics* and *Introduction to Digital Forensics*
- Responsible for creating and grading labs, quizzes, and exams

## Skills &

## Qualifications

- Telecommunications Engineering
- Systems Engineering
- CAD (MS Visio, NI Multisim, etc.)
- Windows, Linux
- HTML/CSS
- C/C++ programming
- Python programming
- Bash Scripting, CLI Tools
- NORAC Operating Rules
- Roadway Worker Protection Rules (Amtrak)
- AMT-2 B & C Electrical Operating Rules (Amtrak)