

## Alec Rosenbaum

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Online Resume: alecrosenbaum.github.io/resume

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### EDUCATION

**Swanson School of Engineering, University of Pittsburgh;** current student; expected graduation Dec 2017  
Major: Computer Engineering – **GPA: 3.693 – Major GPA: 3.98**  
Awarded Honor Student Designation within Swanson School

### SKILLS

#### Languages:

Experienced: Python, SQL (experienced); Java, HTML/CSS, JavaScript (proficient); C, C++ (prior exposure)

#### Software:

Django, Git/Github, Sublime Text, Lint, Ansible, Jupyter/iPython, Flask, Numpy, matplotlib

### PROJECTS

#### Elevator Simulation and Analysis (Course Project)

- Implemented an event-based simulator in Python that logs actor's state changes to a local database.
- Performed analytics using SQLite, Python, and matplotlib to explore how different elevator algorithms influenced queue lengths, wait times, service times, and correlations between these elements.

#### Passive Notifications for Bus Arrival Times (Individual Project)

- Wrote Flask server that interfaces with Port Authority's API to serve stop predictions as RSS.
- Parsed RSS and created a passive notification that updates while at home using Tasker.

### EXPERIENCE

#### Formlabs, Somerville, MA

May 2017-August 2017

Software Engineering Intern

- Improved manufacturing software that enables automated calibration and testing using Python.
- Analyzed manufacturing data and correlated defects, software changes, device usage, and line operators.
- Wrote, documented, reviewed, and deployed code integrated with Github

#### change2target, Greer, SC

August 2016-April 2017

Engineering Data Analyst Co-op; member of team developing web-based data analysis software

- Invited to continue BMW Manufacturing Co-op as a remote, part-time team-member.
- Designed and developed Django-based automated reporting and analytics software.

#### BMW Manufacturing, Greer, SC

January-May 2015, January-August 2016

Engineering Data Analyst Co-op; member of team developing web-based data analysis software

- Designed and developed Django-based automated reporting and analytics software.
- Solved systems-level problems to increase reliability, maintainability, and speed.
- Wrote an automated daily reporting framework using Python.

#### National University of Singapore Research Assistant, Singapore

Summer 2015

Research Assistant; member of team developing nerve-based neuro-prosthetics

- Implemented a UART communication protocol for custom hardware used in neuroprosthetics using C.
- Lab developed custom hardware and performed testing on-site using primates.

#### DEKA Research and Development Corporation, Manchester, NH

Summer 2014

Computer Engineering Intern; member of team developing software for clients in medical device industry

- Developed automated tests for android-based medical device controller prior to FDA approval submission.
- Created and maintained detailed documentation for all development goals and software changes.