# Ajay Benno

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## EDUCATION

### CARNEGIE MELLON UNIVERSITY

B.S in Electrical and Computer Engineering
Minor in Computer Science
Expected May 2019 | Pittsburgh, PA
Cum. GPA: 3.4 / 4.0

### METHACTON HIGH SCHOOL

Grad. May 2015 | Collegeville, PA

## COURSEWORK

### UNDERGRADUATE

- Principles of Imperative Programming(15-122)
- Discrete Mathematics(21-127)
- Introduction to Computer Systems(15-213)
- Functional Programming(15-150)
- Structure and Design of Digital Systems(18-240)
- Introduction to Telecommunication Networks(18-345)
- Database Systems(15-445)*
- Introduction to Computer & Network Security and Applied Cryptography(18-487)*
- Parallel and Sequential Data Structures(15-210)*

(* : In Progress)

## SKILLS

### EXPERIENCED

Python ▪ Java ▪ C

### PROFICIENT

Scala ▪ CircleCi ▪ Arduino ▪ ROS
System Verilog ▪ Unix/Linux

### FAMILIAR

HTML/CSS ▪ Matlab ▪ H2O.ai

## ORGANIZATIONS

Sigma Nu Executive Board
ECE Outreach

## EXPERIENCE

### CAPITAL ONE Software Engineering Intern

Summer 2017| San Francisco, CA

- Implemented a microservice to aggregate data, and pipeline it into a model to predict credit card application fraud; Built a REST API for easy access.
- Setup CircleCi pipelines which built docker containers for easy deployment.
- Wrote cloudformation scripts to automatically build and configure Amazon EC2 instances.
- Added H20.ai (an open source deep learning platform) support to Clipper; Clipper is an open source prediction serving library.

### DECISIVE ANALYTICS CORPORATION | Machine Learning/Software Engineering Intern

Summer 2016| Arlington, VA

- Used support vector machines to model the virality of YouTube videos. The model used features such as sentiment of the video's comments.
- Implemented Latent Dirichlet allocation on the corpus of all user interactions with YouTube to build a profile of the user.
- Built out a REST API to connect the prediction algorithms to a user interface.

### SEI EMERGING TECHNOLOGY CENTER | Software Engineering Intern

Jan 2016 – Present | Pittsburgh, PA

- Creating visual representations of what a robot is doing with light arrays.
- Designed a platform for children to learn to program by developing an interactive coding environment and a connected robot. Over 45 children used this platform and successfully learned basic coding principles.
- Used a corrective gradient refinement algorithm to localize a robot in a physical space. Worked on an application of CGR localization which could autonomously move the robot around in the space by clicking on a map.

### CAPITAL ONE SOFTWARE ENGINEERING SUMMIT

May 2016 | Tysons Corner, VA

- One of 30+ students from 300+ applicants to be selected to attend a one week long Software Engineering Summit in Capital One's corporate headquarters.

## PROJECTS

### HTTP VIDEO STREAMING SERVER 2017

- Built a fully functional video streaming server in C; Compliant with RFC 2616; Used thread pools and other optimization's to serve 5000 concurrent clients.

### SMART JACKET 2017

- Added "Smart" features to a jacket including real time status information controlled by voice recognition; Used Arduino, Python, and various hardware components.

### PHOTOTALK 2016

- Created a multiplayer drawing game using a Flask backend and HTML/CSS/JS frontend.