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Education

Carnegie Mellon University

Pittsburgh, PA

B.S. IN MATHEMATICS (GPA: 3.88)

Aug. 2018 - Present

· Relevant Coursework: Intro to Computer Systems, Principles of Imperative Computation, Functional Programming, Concepts of Mathematics

Technical Skills

Programming and Scripting: C · Python · Standard ML · R · HTML

Frameworks and Libraries: Pytorch · NumPy · OpenCV · Flask · ReactJS · x86

Work Experience ___

Carnegie Mellon CREATE Lab

Pittsburgh, PA

SOFTWARE ENGINEER RESEARCH INTERN

Sep. 2018 - May 2022

- · Trained deep convolutional neural networks in Python for detecting environmental pollution in videos
- Implemented architectures from previous research to establish model performance baseline
- · Designed video preprocessing algorithm with OpenCV to eliminate low-motion data to reduce human efforts in data labeling
- Communicated technical details to non-technical audiences through research presentations

Carnegie Mellon School of Computer Science

Pittsburgh, PA

TEACHING ASSISTANT - 15122 (PRINCIPLES OF IMPERATIVE COMPUTATION)

Aug. 2019 - Present

- Teach labs for introductory programming and data structures course at CMU (500+ students)
- Host office hours and graded assignments for students

HAT Photography

Pittsburgh, PA

DATABASING & WEB DEVELOPMENT INTERN

Apr. 2018 - Aug. 2018

- · Created MySQL database for maintaining prop inventory
- Designed main company website with HTML and JavaScript

Honors & Awards

2019 **Recipient**, Carnegie Mellon Summer Undergraduate Research Funding *Pittsburgh*, *PA*

2018 **Third Place**, Hack-112 Hackathon Pittsburgh, PA

2018 **First Place**, Hack-112 Hackathon People's Choice *Pittsburgh, PA*

Projects

NextUp (Hackathon Project)

Pittsburgh, PA

- Developed website that allowed users to vote on songs and change in real time the queue of a Spotify playlist
- Used a Spotify API in tandem with a Flask backend and React app to create the functional website
- Placed 3rd overall in hackathon out of 50+ teams

Calorimager Pittsburgh, PA

- Used OpenCV for estimating volume of food based on shape and computed size
- Utilized transfer learning to improve Tensorflow model for food recognition
- Queried wolfram alpha API for calorie estimation based on computed food volume

Activities and Leadership

Mr Yuk Ultimate Frisbee: Team Member

Boy Scout Troop 24: Eagle Scout and Senior Patrol Leader