Sean **Prendi**

Software Engineer

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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