

Sean Prendi

SOFTWARE ENGINEER

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Education

Carnegie Mellon University

Pittsburgh, PA

B.S. IN MATHEMATICS | MINOR IN COMPUTER SCIENCE (GPA: 3.88)

Aug. 2018 - May 2022

- Relevant Coursework: Intro to Computer Systems, Software Engineering for Startups, Principles of Imperative Computation, Great Ideas in Theoretical Computer Science, Functional Programming, Set Theory, Algebraic Structures, Concepts of Math, Matrices and Linear Transformations

Technical Skills

Programming and Scripting: C · Python · Go · Javascript · Standard ML · R · HTML & CSS

Frameworks and Libraries: Pytorch · NumPy · OpenCV · ReactJS · NodeJS · ExpressJS · React Native · x86

Work Experience

Carnegie Mellon CREATE Lab

Pittsburgh, PA

SOFTWARE ENGINEER & RESEARCH INTERN

Sep. 2018 - Jan. 2020

- 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 - Dec. 2019

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

Projects

Moments

Pittsburgh, PA

- Developed React Native cross-platform social media mobile application
- Leveraged Firebase database for storage of user accounts and moment cards
- Utilized MVC software design pattern for keeping display and data elements separate and maintainable

NextUp (Hackathon Project)

Pittsburgh, PA

- Developed website that allowed users to vote on songs and change the queue of a Spotify playlist in real time
- Used the Spotify API in tandem with a Flask backend and ReactJS to create the functional webapp
- 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

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

Activities and Leadership

Mr Yuk Ultimate Frisbee: Team Member

Boy Scout Troop 24: Eagle Scout and Senior Patrol Leader