# Diego Martinez

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## EDUCATION

**Carnegie Mellon University,** Pittsburgh, PA

M.S. in Electrical and Computer Engineering **Graduating May 2021**

B.S. in Electrical and Computer Engineering | University Honors **Graduated May 2020**

**Skills:** Software/API Design, Computer Graphics, Computer Vision, Cloud Computing, Embedded Systems, Web Dev

**Tools and Languages:** Java, Python, C/C++, Golang, JavaScript, Bash, ARM Assembly, Git, OpenCV, Arduino, RPi

## WORK EXPERIENCE

**Google[X],** Mountain View, CA **Summer 2020**

*AI Resident: The Everyday Robot Project*

- Researched new robotic grasp representations that used graphical data embeddings in images. Discovered that projecting gripper based on base-vel improved performance on an end-to-end RL grasping policy by 4% on average.

**Google[X],** Mountain View, CA **Summer 2019**

*Robotics Software Intern: The Everyday Robot Project*

- Developed a Virtual Reality interface to remotely teleoperate robots through human movement. This interface is actively being used to collect data to enable robots to autonomously learn to perform new tasks.

**Google**, Mountain View, CA **Summer 2018**

*Software Engineering Intern – Chrome Team*

- Developed a suite of static analyzers for Tricium, an automated code review tool for the Chrome open source project.
- The analyzers run 1,000's reqs/hour and have generated hundreds of automated comments across Chrome dev teams.

**Carnegie Mellon University**, Pittsburgh, PA **Fall 2018**

*Teaching Assistant – 17-214: Principles of Software Construction*

- Taught concepts of design for complex systems, object-oriented programming, robustness and concurrent software.
- Held recitations, office hours and course-wide exam review sessions for 100+ students.

**Microsoft**, Redmond, WA **Summer 2017**

*Explore Intern – Identity Team*

- Spearheaded the technical specification, user experience design and implementation of the cloud-based backup/restore and profile picture updating features on the Microsoft Authenticator Android app.

## PROJECTS

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|---|---|
| **Vitae \|** React + Django web app where users can generate profiles to showcase their professional experiences. | **Dec 2020** |
| **WonderPy \|** Python API designed to provide intuitive programmatic access to the CDC's WONDER datasets. | **Dec 2020** |
| **Scotty3D \|** Interactive graphics software capable of mesh editing, realistic ray tracing and dynamic animation. | **Nov 2020** |
| **InFrame \|** Robotic camera capable of real-time object detection/tracking to follow targets across 3D space. | **May 2020** |
| **STM32-MC Kernel \|** Real-time kernel capable of task scheduling, memory protection and synchronization. | **Dec 2019** |
| **MirrorX \|** Smart two-way mirror with facial recognition login that shows daily calendar, news and weather. | **Jan 2019** |
| **Navlab Research \|** Analysis of cars and pedestrians using object detection, optical flow and segmentation. | **May 2018** |
| **GTAutonomous \|** GTA V self-driving car that uses CV to process game images and simulate keyboard input. | **Dec 2017** |
| **ScreenBacklight \|** Ambient lighting system with multiple operation modes mounted to the back of a laptop. | **May 2017** |