Diego Martinez

diegom@alumni.cmu.edu | diegomartinez.me | 720.618.8168 | Pittsburgh, PA

EDUCATION

Carnegie Mellon University, Pittsburgh, PA **May 2020**
B.S. in Electrical and Computer Engineering | University Honors **GPA:** 3.65/4.00
M.S. in Electrical and Computer Engineering | **Graduating May 2021** **GPA:** 4.00/4.00

Skills: SW Engineering, API Design, Computer Graphics/Vision, Machine Learning, Computer Systems, Web Development
TA Experience: Computer Vision (16-385), Principles of Software Construction (15-214)
Languages: Java, Python, C++, Go, MATLAB, JavaScript

WORK EXPERIENCE

Google[X], Mountain View, CA **May – August 2020**
AI Resident: The Everyday Robot Project

- Researched new grasp proposal representations for an end-to-end RL deep-grasping policy in robot applications that used graphical data representation/image embeddings and improved grasping performance by 4% on average.

Google[X], Mountain View, CA **May – August 2019**
Robotics Software Intern: The Everyday Robot Project

- Developed a VR interface to remotely teleoperate robots. This interface is actively being used for robotic *Learning from Demonstration* (LfD), which enables robots to autonomously perform new tasks based on human behavior cloning.

Google, Mountain View, CA **May – August 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.

Microsoft, Redmond, WA **May – August 2017**
Explore: Software Engineering and Program Management Intern – Identity Team

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

RECENT PROJECTS

Scotty3D Graphics Software Package **September 2020**

- Implemented an interactive computer graphics software package capable of mesh editing, realistic and globally illuminated path tracing and dynamic animation of scenes using splines and forward/inverse kinematics on rigs.

InFrame – Robotic Photography Assistant *[ECE Undergraduate Capstone]* **May 2020**

- Designed the software architecture to support and facilitate the integration of a perception pipeline that tracks user-defined targets and a hardware stack that moves a camera to follow said targets across 3D space.
- Implemented a perception pipeline that detects and tracks objects on an NVIDIA Jetson Nano under strict time-constraints in order to appear to be in real-time (< 60ms per frame).

DiegOS – Real-Time Embedded Operating System **November 2019**

- Designed and implemented a real-time kernel capable of task scheduling, memory protection/isolation and synchronization that used fixed priority rate-monotonic scheduling to meet task deadlines.