Marek Gardias

pmgardias.com przemek.gardias@gmail.com

I work on foundation modeling enabling delightful user experiences. My interests compound towards empowering people with realtime models that share a familiar world view.

My background is in multimodal representation learning (CV & NLP), transfer learning, and geometric modeling. To ship ML-powered products I work cross functionally with large scale data and compute.

Work

Apple **Cupertino, CA**
Machine Learning Engineer *Jan. 2022 - Present*
System and models for Apple Intelligence and Photos Memory Creation

Worcester Polytechnic Institute **Worcester, MA**
Teacher's Assistant, CS541 Deep Learning *Aug. 2020 - May 2021*
Graduate Research Assistant *May 2020 - Aug. 2020*

Proofpoint **San Francisco, CA**
Software Engineer Intern *Jun. 2019 - Aug. 2019*

Cloudflare **San Francisco, CA**
Software Engineer Intern, Sales Operations *Jun. 2018 - Aug. 2018*

Education

Worcester Polytechnic Institute **Worcester, MA**
M.Sc. Computer Science *May 2020 - May 2021*
B.Sc. Computer Science, Cum Laude *Aug. 2016 - May 2020*

Projects

Modeling social interactions to inform classroom climate
- Geometric modeling with student-instructor attention for inferring positive climate in a classroom
- System utilizing model to provide teachers feedback on intervals of classroom video

Residual GANs for context-based image outpainting
- Generative modeling with residual connections and joint local and global discriminators for image outpainting
- Published: arXiv:2005.06723 [eess.IV]

Inferring corrosive behavior of platings with computer vision
- Software for data collection and inference, tested at Cape Canaveral Air Force Station with U.S. ARL scientists
- CNN and SVM ensemble for corrosion test sample rating per ASTM D1654

Controlling swarms in AR with gesture and speech
- Magic Leap system for a user to deploy a swarm of robots to move real objects by manipulating their virtual representations using a combination of voice and gesture controls

Skills

Software: Python (PyTorch, Numpy, etc), Linux, Bash, Git, and Jupyter Notebook amongst others
Compute: Provisioned cloud instances (i.e. AWS, GCP) for replicatable and scaling distributed compute