Przemek Gardias

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EDUCATION

Worcester Polytechnic Institute   **Worcester, MA**
M.Sc. Computer Science   *May 2020 - May 2021*

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

PROJECTS

M.Sc. Thesis: Identifying Positive Classroom Climate   *May 2020 - May 2021*
- Created a deep learning system in PyTorch for evaluating classroom Positive Climate (PC) based on student-instructor interactions
- Built a novel dataset for child identity by matching face images to fine-tune an embedding network to 0.98 AUC for consistent feature extraction from classroom video
- Designed graph convolution network to infer PC from social graph for teacher feedback about overall PC score and warnings of 30-second intervals of a low PC environment

Enhanced Residual Networks for Context-based Image Outpainting   *Jan. 2020 - May 2020*
- Modified generative adversarial network with residual pathways and conjoined local and global discriminators for localized feature consistency in image outpainting on Places365-Standard
- Published results with improved image consistency and 26% decrease in adversarial loss: arXiv:2005.06723 [eess.IV]

Automated Corrosion Assessment and Data Collection   *Jan. 2020 - May 2020*
- Created software to support sample collection for by U.S. Army Research Lab data scientists, validated workflow design and system functionality on-site at Cape Canaveral Air Force Station
- Developed iOS application and Django RESTful API to collect sample data submission and provide inference endpoints for CNN and SVM models for remote corrosion prediction per ASTM D1654

B.Sc. Thesis: Augmented Reality for Improving Human-Swarm Interaction   *Aug. 2019 - Mar. 2020*
- Designed an intuitive object manipulation scheme for Magic Leap headset application to outline swarm tasks
- Provided visual debugging feedback for operator to identify robot to task allocation and corresponding failures

WORK EXPERIENCE

Worcester Polytechnic Institute   **Worcester, MA**
Teacher's Assistant   *August 2020 - May 2021*
- Assisted with the teaching of CS 541 Deep Learning and CS 4518 Mobile & Ubiquitous Computing

Graduate Research Assistant   *May 2020 - August 2020*
- Collaborated with Professor Whitehill to proof tracking-based CLASS climate prediction models in simulation

Proofpoint   **San Francisco, CA**
Software Engineer Intern   *Jun. 2019 - Aug. 2019*
- Developed containerized testing environment with CLI for quick, iterative testing on developer machines
- Created product backend testing jobs in Jenkins deployment pipeline, towards full CI/CD automation

Cloudflare   **San Francisco, CA**
Sales Operations Engineer Intern   *Jun. 2018 - Aug. 2018*
- Developed scripts for asynchronous evaluation of client site service status for 100x speed-up
- Designed heuristic-based systems to generate sales leads using scraped data

SKILLS

Languages: Python, C++, Java, Go, C, Bash
Software: Linux, Git, Jupyter Notebook, Docker, CUDA, Make
Frameworks: NumPy, PyTorch, TensorFlow, Keras, SciKit, SciPy, OpenCV, Pandas, Matplotlib
Compute: Amazon Web Services, Google Cloud Platform, SLURM-based Linux clusters
Awards: Dean's List: Fall 2017, Fall 2018, Spring 2020