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 findings demonstrating improved internal image consistency and 26% decrease in adversarial loss

Automated Corrosion Assessment and Data Collection   *Jan. 2020 - May 2020*
- Developed iOS application for quick data collection of on-field corrosion experiments at Cape Canaveral Air Force Station by U.S. Army Research Lab data scientists
- Deployed Django RESTful API to support system requirements including inference endpoints
- Prototyped CNN and SVM regression models for remote corrosion rating prediction per ASTM D1654

B.Sc. Thesis: Augmented Reality for Improving Human-Swarm Interaction   *Aug. 2019 - Mar. 2020*
- Created a novel intuitive swarm control method for the Magic Leap headset, combining gesture and voice recognition, for easily administering tasks to a swarm without overhead robot management complexity
- Leveraged augmented reality to enable easy swarm-wide debugging with visualization layer of swarm task planning

Brigham & Women's Hospital Kiosk   *Jan. 2018 - May 2018*
- Led the testing team in Agile development of kiosk software with hospital map and directions for visitors
- Developed application by targeting business requirements mapped in activity diagrams and UML flowcharts

WORK EXPERIENCE

Proofpoint   **San Francisco, CA**
Software Engineering 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 to move closer to full CI/CD automation

Cloudflare   **San Francisco, CA**
Sales Operations Engineering 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, Java; **Previously**: Go, C, C++, C#, Ruby, Bash, MATLAB, R, SQL, Lisp, LaTeX
Software: Linux, Git, Jupyter Notebook, Docker, CUDA, Make, GDB, VirtualBox, Unity, Gradle, Valgrind
Frameworks: NumPy, PyTorch, TensorFlow, Keras, SciKit, SciPy, OpenCV, Pandas, Matplotlib
Compute: Amazon Web Services, Google Cloud Platform, SLURM-based Linux clusters