Marcus Loo

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EDUCATION

GEORGIA TECH
MS in Computer Science
Concentration: Machine Learning
Expected Grad: Dec 2020
GPA: 3.71 / 4.0

GEORGIA TECH
BS in Computer Science
May 2019
GPA: 3.58 / 4.0

LINKS

Website:// **marcusloo.github.io**
Github:// **mloo3**
LinkedIn:// **marcusloo**

COURSEWORK

GRADUATE
Deep Learning
ML for Traiding
Data & Visual Analytics
Computer Animation
Big Data Sys & Analytics
Blockchain and Cryptocurrency

UNDERGRADUATE
Machine Learning
Advanced Computer Organization
Natural Language Processing
Computer Vision
Computer Networking
Information Visualization

SKILLS

PROGRAMMING
Languages:
Python • Golang • C • Javascript
Julia • Java
Frameworks/Libraries:
PyTorch • TensorFlow • React • NodeJS
Gym • Stable Baselines

PAPERS FROM CLASS

Analyzing Persuasiveness through Multimodal Model
cutt.ly/multimodel_persuasiveness
SpaceMint: The Future
cutt.ly/proof_of_work

EXPERIENCE

GRADUATE TEACHING ASSISTANT | Computer Vision (omscs6476)
Aug 2019 - Present | Atlanta, GA
- Led problem sets and office hours for 400+ students.
- Ported autograders to be compatible with Gradescope's autograding service.
- Graded and provided feedback for homework assignments and projects

TERBIUM LABS | Data Science Intern
Jun 2019 - Aug 2019 | Atlanta, GA
- Conducted data regression analysis of the relationship between illegal card markets on the dark web.
- Created dashboards to observe market to market comparisons between different crawls.
- Utilized Elasticsearch and MySQL to obtain data from web scraping.

BARCLAYS | Summer Tech Analyst
Jun 2018 – Aug 2018 | New York, NY
- Led and managed a project to adopt blocking sessions into databases within the 200+ person organization.
- Perform server metric forecasting using ARIMA and LSTM.
- Designed and created an Exec Dashboard and Sharepoint Collab Website used by upper level directors.

RESEARCH

ROBOTICS AND REINFORCEMENT LEARNING RESEARCH | Graduate Researcher under Professor Sehoon Ha
Jan 2020 – Present | Atlanta, GA
- Researching state of the art methods on Deep Reinforcement Learning from Demonstration (LfD)
- Focusing my research on Active Learning methods to help increase performance of LfD as well reduce the amount of demonstrations required.
- Adopting adversarial agents to make my agent more robust.
- Utilizing the Fetch robotic arm environment from OpenAI in order to conduct my experiments.

HPC ALGORTHMS WITH FPGAS RESEARCH | Undergaduate Researcher under Professor Richard Vuduc
Jan 2019 – May 2019 | Atlanta, GA
- Ported a benchmark tool for assessing memory system architecture to a FPGA using OpenCL.

PROJECTS

VIDEO STABILIZATION Website with results and explanation: https://cv-gmnw.github.io/project-website/final_update.html
- Created an End-to-End video stabilization software.
- Used SIFT to obtain features and FLANN matcher to detect similar features between frames.
- Filtered matched points are then projected to the next frames space using a homography.