

Marcus Loo

marcusloo.github.io
ml003@gatech.edu | 201.788.8118

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:// [ml003](https://github.com/ml003)

LinkedIn:// [marcusloo](https://www.linkedin.com/in/marcusloo)

COURSEWORK

GRADUATE

Deep Learning

ML for Trading

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 ALGORITHMS WITH FPGAS RESEARCH | UNDERGRADUATE

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.