

Andrew Farabow

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Education

Gonzaga College High School (2015 - 2019)

GPA 3.9 Graduating May 2019

Virginia Tech (2019 -)

Major: General Engineering (Computer Science)

Skills

Programming: Python, Java, C/C++, Go

Frameworks: Numpy, PyTorch, OpenCV, Pandas

Other Skills: deep neural networks, deep reinforcement learning, Git, CircleCI, LaTeX

Work Experience

Decipher Technology Studios Internship

Summer 2018 & 2019

- Working on a small team to develop a new product which provides deep reinforcement learning-powered predictive auto-scaling for Decipher's Grey Matter service mesh
- Studied various deep reinforcement learning architectures, including Deep Q-Learning, Policy Gradient, Actor-Critic and Proximal Policy Optimization (PPO)
- Collaborated with another intern to implement PPO and wrote a microservice environment simulator
- Configured and deployed a demo of Sense to AWS under an imminent deadline
- Added Gated Recurrent Units to the network to better leverage time series data
- Tweaked hyperparameters and restructured PPO to improve performance

Activities

Gonzaga Dramatic Association Stage Crew

2017 - 2019

- Led a 20-member team for two productions as stage manager (2018-2019)
- Designed and coordinated the construction of a structure over 20 ft. wide and 8 ft. tall
- Called cues during shows and solved problems in a high-pressure environment
- Maintained safe working conditions for the crew
- Worked with the stage manager to quickly diagnose and fix technical issues as assistant stage manager (2017-2018) before being promoted

HackBI (Bishop Ireton High School Hackathon)

- Member of a team that won best overall in a programming contest making use of machine learning and computer vision techniques to interpret hand-written text
- Returned to HackBI in 2018 to mentor teams and teach deep learning concepts

Projects

Machine Learning Templates - flexible PyTorch implementations of a neural network, autoencoder and evolutionary algorithm designed for future machine learning projects

Grease Lights - custom Arduino-driven circuit and software to control LED strips located on the set of a high school production of Grease

Magic Mirror - remotely controlled Raspberry Pi-powered theatrical optical illusion