Daniel Loran

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Education:
Computer Science, BS. University of California, Davis June 2020

Related courses:
Theory of Computation, Artificial Intelligence, Machine Learning, Computer Architecture

Relevant experience:
C, C++, Python, SQL, R, Intel assembly, Git, Linux command-line, Keras, Tensorflow, Scikit-learn, Pandas, OpenCV, Docker, Pytorch

Relevant projects:
Hanabi Reinforcement Learning Project (C++, Python) Spring 2019

- Implementing an AI to play Hanabi using Deepmind environment
- Hanabi AI is a monte carlo tree search combined with a neural network to predict other players' policy during their move in MCTS simulation phase
- Presented results at UC Davis Industrial Affiliates Symposium

Self Driving Car Independent Study (C, C++, Python) Spring 2019

- Implementing image classification and detection through deep learning, Bayes, and Kalman filters to create a self-driving car.
- Currently testing different lane line detection models to increase the speed at which lanes are detected while still maintaining accuracy.
- Researched and justified the repurposing of different existing models to solve problems like lane line detection and image detection/classification.

AlphaZero implementation (Python) Oct 2018-Jan 2019

- Implementing DeepMind's AlphaZero algorithm to play Tic Tac Toe and Connect Four with a new Discounting Heuristic.
- Based on Paper: Mastering Chess and Shogi by Self-Play with a General Reinforcement Learning Algorithm David Silver et al.

Experience:
Software Developer at Blue Shield of California Summer 2018

- Individually developed and implemented an internal diagnostic script to monitor server health. Coordinated with different department heads to ensure my tool would be useful.
- Project ended up saving the company 76 man-hours a week.

Corps Member at City Year (AmeriCorps affiliate) August 2012-June 2013

- Responsible for improving the math and organizational skills of underperforming inner city middle-school students as a math tutor and mentor.
- Collaborated with instructors to develop and deliver lesson plans.
- Provided technical assistance to teachers and school administrators.