Eugene Kim

Résumé

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Education

Aug 2017 - May 2021
B.A. Computer Science and Mathematics, *Cornell University*, Ithaca, NY, *GPA: 3.65.*
Relevant Coursework: Introduction to the Analysis of Algorithms, Algorithmic Game Theory, Robotics, Numerical Analysis: Linear and Nonlinear Equations, Applications of Parallel Computers, Machine Learning, Mathematical Foundations for the Information Age, Object Oriented Programming and Data Structures Honors, Functional Programming, Discrete Structures, Computer System Organization and Programming, Linear Algebra, Multivariable Calculus, Number Theory, Combinatorics, Applied Complex Analysis, Operating Systems **Awards:** Tanner Deans Scholar: Awarded $5000 research scholarship from Cornell University for outstanding high school achievement

Aug 2013 - May 2017
High School Diploma, *Buchholz High School*, Gainesville, FL, *GPA: 4.0, SAT: 2350, National Merit Scholar, AIME Qualifier.*

Research Projects

June 2020 - Present
Distributed Robotics Laboratory, *Social Value Orientation for Multi-Agent Reinforcement Learning in Social Dilemmas*, Remote, Massachusetts Institute of Technology.
Studying the effects of reward-shaping using the Social Value Orientation concept on deep reinforcement learning for multi-agent sequential social dilemmas. Using Tensorflow and Unity Game Engine. Advised by Wilko Schwarting and Daniela Rus.

Feb 2018 - March 2020
Robotics Personal Assistants Lab, *A Cooperative Embodied agent for Hanabi (on pause due to COVID-19)*, Ithaca, NY, Cornell University.
Researching the role of implicit communication and embodiment in human-robot teams, drawing on design principles inspired by theories from psychology and linguistics. Cooperates with an engineering team of 6 to develop a Baxter robot playing the card game Hanabi, implementing different AI models to make cooperative decisions. Recruited 12 human participants to participate in an observational data collection study. Research is conducted under the guidance of Professor Ross Knepper and Professor Malte Jung and is funded by the Office of Naval Research

Internship Experience

Summer 2019
Amazon Music, *Language of Performance Detection*, San Francisco, CA.
Evaluated the performance of AWS Comprehend (a language detector) on lyrics text files according to precision-recall curves using sklearn and PANDAS. Used AWS services and internal tools to connect language detection services to new lyrics upload events.

Teaching Experience

Oct 2019 - Present
Teaching Assistant for Introduction to Analysis of Algorithms, CS 4820, *Cornell University*, Ithaca, NY.
Holds weekly office hours and grades 20 proof-based student submissions per week

Activities

- **Cornell Chamber Orchestra:** Violinist from Aug 2017 - Dec 2018
- **Chamber Musician** Violinist from Jan 2019 - Dec 2019.

Technical skills

- **Languages:** Java, Python, OCaml, C, Matlab, Julia

- **Technologies:** Git, Robot Operating System, Dagger, AWS, Tensorflow