

Chunlok Lo

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EDUCATION

Georgia Institute of Technology – Atlanta, GA

Bachelor of Science in Computer Science | Minor in Industrial Design

Specialization: Artificial Intelligence and Computer Graphics and Animation

Aug 2016 – Present

Expected Graduation: May 2020

GPA: 4.0/4.0

RESEARCH EXPERIENCE

Cognitive Optimization and Relational Robotics Laboratory

Jan 2019 – May 2019

Advisor – Matthew Gombolay

Presentation – <https://chunloklo.github.io/pdf/hrl-ol-presentation.pdf>

- Investigated the effect of simultaneously training option discovery with hierarchical reinforcement learning algorithms in a stochastic environment
- Studied various intrinsic motivation methods for encouraging exploration in a sparse reward environment

Simulation and Control of Soft-Bodied Creatures

Aug 2018 – May 2019

Advisor – Greg Turk

Project Page – https://chunloklo.github.io/softbody_gait_discovery/

- Developed a particle simulator to physically model soft-bodied creatures using finite element method in C++ and investigated methods to create realistic gaits
- Designed a framework to model muscle groups and their contractions patterns and applied CMA-ES as a policy search algorithm to automatically discover gaits of soft-bodied creatures

Agile Communication Architectures

Aug 2018 – May 2019

Advisor – Mattieu Bloch

Team Page – <https://www.vip.gatech.edu/teams/agile-communication-architectures>

- Developed a flexible framework to compare and contrast the effectiveness of different transmission policies for simultaneous transmission in the radio spectrum
- Applied machine learning algorithms to classify radio modulations and transmission patterns to create radios that opportunistically utilize spectrum resources

Graph Theory and Algorithms Research

Aug 2017 – May 2019

Advisor – Xingxing Yu

- Collaborated with a PhD student to research connectivity of monochromatic graphs in two-colored complete graphs and other related topics

WORKING EXPERIENCE

Software Engineer Intern – Facebook

Sep 2019 – Nov 2019

- Built the first React Native share extension for iOS and Android at Facebook for the Portal companion app
- Added better support for iOS extension for the open source React Native library

Software Engineer Intern – Riot Games

May 2019 – Aug 2019

- Developed the integration test framework and created regression tests to ensure the stability of the platform SDK and incorporated integration testing into the continuous integration system in Jenkins
- Created a client-side service to store and retrieve preferences linked to a player's account and communicated with game teams to migrate onto the new service
- Added telemetry between the platform SDK and the client UX to monitor the latency in the UX launch flow

Software Development Intern – Ab Initio Software

Jun 2018 – Aug 2018

- Implemented a C++ utility to automate transformation of complex data types into flat relational forms
- Created tools to facilitate the registration of flattened data views as SQL query-able data sources
- Coordinated between two teams to expose a SQL database interface to allow business users to run complex SQL queries against a proprietary key-valued database

Software Engineering Intern – The Home Depot

May 2017 – Aug 2017

- Combined unsupervised clustering algorithms and keyword extraction algorithms to understand groupings of customer issues from over 3 million chat transcripts using Tensorflow and Gensim
- Automated nightly batch database updates through scripts using GCP REST API endpoints

Teaching Assistant – CS 1332 Data Structures and Algorithms

Aug 2017 – May 2018

- Held 3 hours of office hours weekly for 500+ students to help students with coursework
- Taught weekly 90 minute recitations to a section of 50 students covering course material
- Wrote JUnit tests to grade weekly coding assignments

SKILLS

Programming Languages: Python, C++, Java, Bash, R, JavaScript, C#, C, Objective C, SQL, Octave

Applications: Git, IntelliJ, Android Studio, Unity, PyCharm, Perforce, Emacs, Photoshop, Creo

Languages: English (Native), Cantonese (Native), Mandarin (Fluent), Japanese, French

PROJECTS

Unfiltered – <https://team-vision2020.github.io/>

- Developed a filter inverter that automatically identifies and invert of social media photography filters using convolutional neural network based approaches

Halite AI Challenge

- Constructed a rule-based agent in Python that ranked in the 80th percentile against other AI agents in an AI programming challenge where bots compete in a turn-based game

OTHER INTERESTS

Organizations: Big O CS Theory Club (Communications Officer), The Agency AI/ML Club

Other Interests: Badminton Club (Coach), Fencing, Jazz, Dance