Joanne Yuan

250 Del Medio Ave. Apt. 101, Mountain View, CA 94040 ♦ Email: joanneyu@mit.edu ♦ Phone: 650-996-7976

EDUCATION

Massachusetts Institute of Technology – Cambridge, MA May 2022
Candidate for Bachelor of Science in Computer Science and Engineering, GPA: 4.6/5.0
Past Coursework: Design and Analysis of Algorithms, Machine Learning, Elements of Software Construction
Current Classes: Performance Engineering, Computational Cognitive Science, Statistics

Los Altos High School – Los Altos, CA June 2018
GPA: 4.0/4.0, SAT: 1560

WORK EXPERIENCE

Lab Assistant – Introduction to Algorithms (6.006) Sept. 2020 – Present
Software Intern — Salesforce June 2020 – Aug. 2020
- Worked with product manager and various teams to identify and create workflow for user authentication.
- Created server-side authentication service (leveraging the Spring framework), combined with a landing page for users.
- Identified data inconsistencies in DynamoDB database and displayed them to users.

Undergraduate Researcher – Kanwisher Lab, Department of Brain and Cognitive Sciences Jan. 2019 – Present
Neural and Computational Studies of Human Face Perception
- Investigated face selective units emerging from AlexNet to show that prior visual experience with faces is required for human-level performance in identification tasks.
- Trained TensorFlow network on Amazon MTurk behavioral data to identify the dimensions of the face most relevant in distinguishing between identities.
- Used representational similarity analysis to find correlations between activations of a neural network and gender, age, and identity characteristics and determined the effect of familiarity on the time course of visual processing.

Lab Assistant – Fundamentals of Programming (6.009) Sept. 2019 – Dec. 2019
Software Intern – Intel June 2019 – August 2019
- Developed ML training course, including slides and hands-on coding exercises in PyTorch, to train 200 Intel employees at sites in California and Oregon.
- Conducted market research on AI hardware and analyzed findings to present at Intel's AI forum (~100 attendees).
- Wrote TensorFlow script to benchmark ~20 different ML models on various hardware.
- Researched various graph/tensor compilers and summarized key takeaways for team.

Intern – Wynd Technologies Inc. June 2017 – June 2018
- Enhanced and expanded an Android app to monitor up to six sensors simultaneously.
- Aggregated realtime pollution data into database with JavaScript, for use in in production.

LEADERSHIP & ACTIVITIES

Traders@MIT – Cambridge, MA Sept. 2018 – Present
Co-President
- Organized annual fall competition with 120+ competitors from 25+ schools and $20k in prizes.
- Managed team of ~20 students to write cases, develop our trading exchange, and coordinate logistics.
- Reached out to ~50 companies to raise more than $120,000 annually in funding.

AI@MIT – Cambridge, MA Sept. 2019 – Present
Workshops Chair; Exec Board Member
- Developed curriculum to introduce students to basic ML concepts.
- Recruited and managed team of ~6 students to teach at biweekly workshops series.
- Led "Convolutional Neural Networks" talk at the 2020 AI Latin America Summit at MIT.

PUBLICATIONS

- Dobs, K., Palmer, IA., Yuan, J., Mohsenzadeh, Y., Oliva, A., Kanwisher, N. Effects of Face Familiarity in Humans and Deep Neural Networks. *European Conference on Visual Perception* (2019)
- Yuan, J., Yu, J., Wang, D., Vronsky, M., Huang, R. Mathematical Analysis of Food Waste Production and Redistribution. *SIAM Undergraduate Research Online* (2018)

HONORS

National Merit Scholarship ♦ 1st Place Mathworks Math Modeling Challenge 2018 ♦ United States Physics Olympiad Bronze Medalist ♦ Jane Street Women in Stem 2018 ♦ 2nd Alliance Matches of Global Competition of Educational Robotics

SKILLS/INTERESTS

Programming: Java ♦ Python ♦ C/C++ ♦ JavaScript ♦ Pytorch ♦ TensorFlow
Interests: Figure Skating ♦ Music ♦ Literature ♦ Poetry