Daniel Chang chan1975@umn.edu +1-507-202-1396

## **EDUCATION**

# • Honors Bachelors of Science in Computer Science

Minneapolis, MN

College of Science and Engineering, University of Minnesota; GPA: 4.00

Expected April 2024

- Relevant Coursework: Machine Learning; Statistics and Probability; Artificial Intelligence; Algorithms & Data Structures; Honors Discrete Math; Computational Linear Algebra; Machine Architecture & Organization;
- Scholastic Awards: Presidential Scholarship, AP National Scholar, Delta Sigma Phi Men of Courage Award, Dean's List

#### Programming Skills

- Languages: Python, R, Matlab, Java, C, C++, Javascript, HTML, CSS
- Technologies: scikit-learn, NumPy, Pandas, Matplotlib, Pytorch, Excel, git, unix/shell, LaTeX

## LEADERSHIP & EXPERIENCE

## • Undergraduate Research Assistant

Mayo Clinic, Rochester, MN

Microbiome Systems Medicine Laboratory (PI: Jaeyun Sung, PhD)

March 2021 - Present

• Performed machine learning techniques on large-scale microbiome and immunology datasets with the aim of identifying biomarkers, visualizing data for interpretability, and increasing the predictive power of microbiome based health status indicators.

## • Mayo Clinic Laboratory Mentorship

Rochester, MN

Transporter Molecular Biology and Physiology Laboratory Mentee

Spring 2019

- Performed electrophysiology trials on functional defects of Dent disease causing mutations to quantify ion exchange in order to contribute data that is being used in a publication.
- Cloned wild type CLC-5 proteins in Xenopus laevis oocytes and performed eGFP and hemagglutinin tagging to quantify trafficking defects.

# • CS106a Section Leader

Rochester, MN

Stanford University

Feb 2021 - Present

- o Section leader for Stanford University's free, non-credit, remote course CS106a ("Code in Place")
- Create engaging programming lessons and discussions for introductory Python for a group of 10 students online.
  Hold office hours and provide feedback and grading on programming assignments and exams to improve class engagement.

#### • Youth Enrichment League

Rochester, MN

Robotics Instructor

Summer 2021

- $\circ$  Led a summer robotics camp, teaching several groups of 5-10 grade school students the fundamentals of LEGO EV3 robotics, modular programming, problem solving, and teamwork
- Prepared the students with teamwork and programming skills to compete in the LEGO robotics FLL competition

# • UNICEF Club

Rochester, MN

Co-founder and Treasurer

Spring 2017 - Summer 2020

- Co-founded the first youth UNICEF chapter in MN and kickstarted the UNICEF clubs at all other public high schools in Rochester.
- Networked with local businesses to raise \$20,000+ for disaster relief and with local schools for advocacy events.
- Created excel scripts for managing fundraising event budgets and managed monetary transactions with UNICEF.

#### Volunteering

- Piano/Rochester Youth Music Ensemble: Founded a local youth group focused on performing piano/chamber music in retirement homes. 2018 Rochester Music Guild Senior Piano 1st Place
- Saint Mary's Hospital Young Volunteers: Guided patients to their destinations in the complex building at the local hospital, comforted patients after a long day of surgery or appointments.
- Knowledge Bowl Captain: Won regional championship. Led practices three times a week and volunteered for booster club funding.