Michael Li

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EDUCATION

Carnegie Mellon University *'22 – '26 (expected)*

- **B.S. in Machine Learning and Statistics**
- **Skills:** Java (6+ yrs.); Python (5+ yrs.); C++ (5+ yrs.); React, HTML/CSS, JS (5+ yrs.); R (2 yrs.); Machine Learning, Tensorflow (4+ yrs.); Piano (12 yrs.), Rowing
- **Courses:** 15-112: Fundamentals of Programming and Computer Science, 21-259: Calculus in Three Dim., 36-202 Meth. for Statistics & Data Science, 21-127: Concepts of Mathematics, 15-122: Principles of Imperative Computation

EXPERIENCE

Artificial Intelligence (AI) Research Engineer, Beaver Health *2022 – Present*

- Developed a custom lightweight, generative AI dialogue model framework to digitize evidence-based health interventions (Python, GPT-4, Rasa, DialogFlow)
- Designed research proposals for safe/ethical health AI pipelines to Beaver's team of clinicians and Facebook/Harvard alums working on NIH-funded AI R&D; my proposed pipelines were selected to deploy into the production

Machine Learning (ML) Research Intern, University of Victoria *2021 – 2023*

- Coded, trained, and evaluated temporal convolutional networks (TCN), CNNs, and LSTMs to predict COVID outcomes based on U.S. county demographic data
- The TCN model reduced mean average error of the CDC's ensemble model's accuracy on the CDC's public COVID dataset from 109.45 to 94.54 (0.0588% to 0.0078%)
- Published work as first-author in Journal of Global Health, featured on the journal's front page: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10208648/

Founder & Software Developer, COVIDCatcher *2021 – Present*

- Developed a low-cost, multimodal ML-based web app to detect COVID-19 symptoms and coughs (Python, Tensorflow, VGG-19), helping immunocompromised older adults access resources from home
- Coded COVID-19 forecast dashboard in React to display COVID cases for every county in the United States (React)
- Presented research poster to a panel of biotechnology leaders as Bay Area BioGENEius Finalist; was featured in the Journal of Global Health

Software Engineer, Amador Valley Robotics Club *2018 – 2022*

- Awarded 2nd place in 2022 against top universities in the RoboNation International RoboSub Competition
- Wrote code using **OpenCV** and **C++** for **object detection** and **image processing** to detect pathmarkers
- Coordinated with machine learning team to create ML workflows for real-time object detection and convert **C++** code to **Python**

Software Developer Intern, Omou Learning *June 2020 – 2021*

- Built feature for Google Classroom API integration into Omou's digital learning React website, for users to sign in via Google and invite & unenroll students
- Built Google login authentication feature into Omou's user onboarding flow

AWARDS & RECOGNITION

- **California Science and Engineering Fair Poster Presenter**: 2021, 2022
- **Synopsys Alameda County Science and Engineering Fair First Place** in Systems Software, CS, and Programming: 2021, 2022
- **Bay Area BioGENEius Challenge Finalist**, 2021
- **Hackathon Recognitions: HackItShipIt** Hackathon First Overall, 2020, **Data Day Grind** Hackathon Best Data Visualization, 2020, **To the Moon and Hack** Hackathon, Third Overall, 2020
- **United States Open Music Competition First Place** Showcase Solo Senior, 2022
- **MTAC Alameda County Piano Competition**, First Place Senior Division, 2022
- **National Merit ScholarshipFinalist**, 2022