

Lawrence Chen

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Fremont, CA

Education

University of California, Los Angeles

Los Angeles, CA

- Regents Scholar; Phi Beta Kappa; **Summa Cum Laude**
- Bachelor of Science in **Computer Science**, with focus in Engineering Mathematics and Statistics
- Related Coursework:
 - Deep Learning & Neural Networks; Machine Learning; ML in Genetics; Artificial Intelligence; Signal Processing; Distributed Systems; Operating Systems; Data Structures & Algorithms; Database Systems; Multi-Variable Calculus; Linear Algebra; Differential Equations; Probability Theory; Mathematical Statistics; Applied Numerical Methods;

Languages & Tools

- Python; C; C++; SQL; Hack/PHP; Golang; LISP; Javascript; HTML/CSS; R; Verilog; Matlab/Octave; Java;
- Tensorflow; Pytorch; Keras; Scikit-Learn; OpenCV; Numpy; Pandas; Node.js; Git; Linux systems;

Work Experience

Facebook

Menlo Park, CA | Jul 2020 - Current

Machine Learning Engineer | Big Code

- Researched deep learning models that understand code, building large state-of-the-art NLP transformer architectures for source code data
- Owned ML systems for automating code review process, improving developer productivity, and measuring code review quality
- Deployed automated testing processes and intelligent file ranking system, decreasing overall code review time at Facebook by over 15%

UCLA Henry Samueli School of Engineering and Applied Science

Los Angeles, CA | Sep 2018 - Dec 2019

Research Engineer | Center for Vision, Cognition, Learning, and Autonomy (VCLA)

- Implemented online demo and deployed trained PyTorch model for presentations and human-computer interaction experiments
- Developed new computer vision architecture that provide contrastive and counterfactual explanations using human-defined concepts

Facebook

Menlo Park, CA | Jun 2019 - Sep 2019

Software Engineering Intern | Applied Machine Learning for Ad Delivery

- Researched methods of improving Facebook Ads machine learning model performance to increase conversion rate for app ads targeting
- Introduced new data representations, e.g. utilizing taxonomical app categories to improve app engagement prediction recall by over 20%
- Developed core machine learning infrastructure to enable query-dependent attention mechanism in Facebook's ads ranking model

Google

Los Angeles, CA | Jan 2019 - Apr 2019

Student Developer Fellow | Google Cloud x NCAA March Madness

- Participated as 1 of 40 Google Cloud student developers analyzing NCAA basketball game data in partnership with NCAA March Madness
- Built and tested correlational models and recurrent neural network models to predict game events using box score data

X, the moonshot factory (Formerly GoogleX)

Mountain View, CA | Jun 2018 - Sep 2018

Software Engineering Intern | Chronicle Security

- Implemented an internal tool for customer onboarding, automating workflow and improving onboarding process to be 5x faster
- Developed Flume batch jobs for data pipelining, redesigned and optimized database for network security logs

Selected Side Projects

Automask.app

Tensorflow; React | Jun 2020

- Privacy-focused web application that automatically detects and segments humans in images, then aesthetically blurs identifiable features
- All model inference and image processing is performed on-device inside the user's browser to ensure privacy and security

EEG Brainwave Classification

Keras; Pytorch | Mar 2019

- Researched and experimented with EEG brainwave signal processing and classification methods for brain-computer interfaces
- Built a custom CNN model that achieved up to ~70% test accuracy in distinguishing intended motor control from only EEG signal

Genie

Tensorflow; Python | Jun 2018

- Web application that generates usable React code from hand-drawn images of webpage mockups, i.e. automated web development
- Utilized Tensorflow API to implement transfer learning on top of Faster R-CNN model to detect and classify objects in hand-drawn images

Aside from Tech...

- Member of MIT Sloan's Early Admit MBA Program, tentatively Class of 2027
- I'm also an aspiring artist. I used to perform Bollywood fusion dance and act in local theater. Now I make music in my spare time!