

ALEX TSUN

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EXPERIENCE

Machine Learning and Relevance Engineer

[LinkedIn](#)

📅 Oct 2020 – Present 📍 Sunnyvale, CA

- LinkedIn Talent Solutions & Careers AI Foundations Team.

Lecturer

[Paul G. Allen School of Computer Science & Engineering](#)

📅 June 2020 – Aug 2020 📍 Seattle, WA

- CSE 312: “Foundations of Computing II” (Probability & Statistics for Computer Scientists).
- Redesigned the course to include the fundamentals of statistics (e.g., estimators, confidence intervals, and hypothesis testing) and several applications to computer science in Python (e.g., Naive Bayes, bloom filters, distinct elements, MCMC, bootstrapping, multi-armed bandits), which were typically not included in previous iterations.
- Together with the teaching staff, developed new materials: a textbook, clear and concise slides, problem sets, autograders for nine new coding problems, concept checks, publicly available YouTube short lectures, and section materials.
- Interviewed, hired, and managed a staff of 8 undergraduate TAs to ensure high-quality quiz sections, office hours, and materials.

Course Assistant

[Stanford University School of Engineering](#)

📅 Apr 2019 – June 2020 📍 Stanford, CA

- CS 109: “Probability for Computer Scientists”.
- Developed new materials for section, including problems, review sheets, and quizzes.
- Led discussion sections, graded homework and exams, and held regular office hours.

Machine Learning and Relevance Engineer Intern

[LinkedIn](#)

📅 Jun 2019 – Sep 2019 📍 Sunnyvale, CA

- Jobs Personalization Team under Careers AI.
- Worked on incorporating long-text semantic information from members and jobs into job recommendation pipeline.
- Experimented with fine-tuning BERT model using Tensorflow, but was computationally intractable due to the size of BERT and the dataset.
- Wrote pipeline to compute text embeddings offline with pre-trained BERT to use as features, resulting in a 1.3% AUROC lift on prediction of apply.
- Moved to CNN model with orders of magnitude fewer parameters than BERT, allowing for fine-tuning. Ability to fine-tune gave an edge over pre-trained BERT, resulting in a 2% AUROC lift on prediction of apply.

EDUCATION

M.S. Computer Science – Spec. in Artificial Intelligence & Theoretical Computer Science

[Stanford University](#) **GPA: 4.06**

📅 Sep 2018 – Jun 2020 📍 Stanford, CA

B.S. Computer Science

B.S. Statistics

B.S. Mathematics (Comprehensive)

[University of Washington](#) **GPA: 3.92**

📅 Sep 2014 – Jun 2018 📍 Seattle, WA

LANGUAGES

Java Python C++ SQL R

COURSEWORK

Computer Science

Machine Learning for Big Data

Computer Vision

Artificial Intelligence

Natural Language Processing

Deep Generative Models

Probabilistic Graphical Models

Learning Theory

Randomized Algorithms & Probabilistic Analysis

Incentives in Computer Science

Reinforcement Learning

Optimization & Algorithmic Paradigms

The Modern Algorithmic Toolbox

Mathematics & Statistics

Linear & Convex Optimization

Fundamental Concepts of Analysis

Topology & Differential Geometry

Modern Algebra

Combinatorial Theory

Statistical Machine Learning

Applied Statistics & Experimental Design

Applied Regression & Analysis of Variance

Stochastic Processes