#### **EDUCATION**

## University of California, Berkeley

Berkeley, CA

Bachelor's Degree in Computer Science; GPA: 3.98/4.00

Aug. 2018 - Present (Expected May 2022)

- Computer Science Classes: Structure and Interpretation of Computer Programs (CS 61A), Data Structures (CS 61B), Machine Structures (CS 61C), Discrete Mathematics and Probability Theory (CS 70), Computer Security (CS 161), Operating Systems and Systems Programming (CS 162), Efficient Algorithms and Intractable Problems (CS 170), Introduction to Machine Learning (CS 189)
- Electrical Engineering Classes: Designing Information Systems and Devices (EE 16A/B), Probability and Random Processes (EE 126), Convex Optimization (EE 127)
- Mathematics Classes: Multivariable Calculus (Math. 53), Linear Algebra and Differential Equations (Math. 54), Functional Analysis (Math. 202B)
- o Statistics Classes: Probability Theory (Stat. C205A), Introduction to Theoretical Statistics (Stat. 210A)

#### Industry Experience

Amazon

Manager: K. Sohony

Software Development Engineer Intern, International Seller Growth Group

May 2020 - Aug. 2020

• Serverless Application Development: Developed several serverless applications using AWS Lambda, interfacing with both AWS services (DynamoDB) and Amazon-internal services, to provide extended functionality to new customer service program. Sped up registration workflow runtime from several hours to < 1 minute.

SymphonyAI

Mentor: Dr. J. Kloke

Machine Learning Engineer Intern

Jun. 2019 - Aug. 2019

o Topological Data Analysis Demo: Used a combination of traditional machine learning techniques (random forests, ensemble methods), natural language processing (word embeddings via deep neural networks), and topological data analysis (TDA) to create state-of-the-art recommender system; methodology used in further company projects, and model used as efficacy benchmark for company TDA suite.

### ACADEMIC EXPERIENCE

## UC Berkeley EECS Department

Course Staff, CS 170, EE 127

Professors: Dr. J. Nelson, Dr. A. Chiesa, Dr. V. Anantharam

Jan. 2020 - Present

- CS 170 Reader: Held weekly conceptual office hours on algorithms and data structures, assisted students at discussion sections and at "homework parties", created grading rubrics, and graded problem sets/exams.
- **EE 127 uGSI**: Holds weekly conceptual office hours on linear algebra and optimization theory, teaches conceptual discussion sections, assists students with problem sets at "homework parties", grades exams, contributes to course content through optimizing course layout and reworking homeworks/discussion worksheets.

## UC Berkeley EECS Department

PI: Dr. A. Tal

Undergraduate Researcher, Theory Group

Feb. 2020 - May 2020

• Algorithmic Machine Learning Research: Participated in research group about learning efficient representations of boolean functions; read at least one recently-published paper and some lecture notes a week; summarized/generalized results in literature and presented work to group during weekly meetings.

# UC Berkeley Development and Impact Lab

PI: Dr. A. Gadgil

Research and Development Intern, UC Berkeley Gadgil Lab for Energy and Water Research Nov. &

Nov. 2018 - May 2019

• Model Creation: Developed simulation of novel arsenic-removal technologies (ECAR/ACAIE) using chemical kinetics models and machine learning techniques (support vector machines, tree models) to predict technological efficacy given environmental parameters, along with associated data pipeline and visualization engine.

#### TECHNOLOGIES

- Languages/Frameworks: Python, Java, C++, C, Go, Kotlin, SQL
- Machine Learning Libraries: TensorFlow, PyTorch, Keras, SKLearn, Pandas
- Cloud Services: AWS Lambda, AWS DynamoDB, AWS EC2, AWS CloudFormation, GCP Functions, GCP VMs
- Other: Docker, Git, Electron, LATEX, MATLAB, Mathematica