Druv Pai

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Bay Area, California, USA

1-408-505-3195

Education

- **University of California, Berkeley** — Berkeley, CA
  Bachelor's Degree in Computer Science; GPA: 3.98/4.00 — *Aug. 2018 – Present (Expected May 2022)*
  - **Selected Electrical Engineering/Computer Science Classes**: Computer Security (CS 161), Operating Systems and Systems Programming (CS 162)[1], Efficient Algorithms and Intractable Problems (CS 170), Machine Learning (CS 189)[2], Probability and Random Processes (EE 126), Convex Optimization (EE 127)[2]
  - **Selected Mathematics/Statistics Classes**: Functional Analysis (Math. 202B), Probability Theory (Stat. C205A)[1], Introduction to Theoretical Statistics (Stat. 210A)[1]

1. Currently taking this class.
2. Received grade of A+.

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*
  - **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.

Academia Experience

- **UC Berkeley EECS Department** — Professors: Dr. J. Nelson, Dr. A. Chiesa, Dr. V. Anantharam
  Course Staff, CS 170, EE 127 — *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**: Holding weekly conceptual office hours on linear algebra and optimization theory, teaching conceptual discussion sections, assisting students with problem sets at "homework parties", grading exams, contributing 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 recently-published papers and lecture notes each 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. 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