PRANAV SUKUMAR

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EDUCATION

University of California, Berkeley **GPA: 3.815**

B.S. in Electrical Engineering and Computer Sciences, Minor in Data Science **(Aug 2019 – May 2023)**

- Relevant Coursework: Introduction to Database Systems (CS 186), Computer Security (CS 161), Efficient Algorithms and Intractable Problems (CS 170), Principles and Techniques of Data Science (Data 100), Discrete Mathematics and Probability Theory (CS 70), Great Ideas in Computer Architecture (CS 61C), Data Structures and Algorithms (CS 61B), Structure and Interpretation of Computer Programs (CS 61A), Foundations of Data Science (Data 8), Designing Information Devices and Systems II (EECS 16B), Designing Information Devices and Systems I (EECS 16A), Multivariable Calculus (Math 53).
- Honors to Date distinction for overall GPA in the top 20 percent of the College of Engineering; Dean's Honors List.

EXPERIENCE

Returning Software Engineer Intern | Nvidia (GPU Network Cloud Infrastructure Team) **(June 2021 – Aug 2021)**

- Developed secure end-to-end automation of Windows KMS Volume Activation for NVIDIA GeForce Now machines.
- Used Terraform and Python to automate the creation of AWS EC2 instances, VPCs, Subnets, and Security Groups.
- Developed a Jenkins Pipeline to build, deploy, and test the Windows KMS Volume Activation automation.

Software Engineer Intern | Nvidia (GPU Network Cloud Infrastructure Team) **(May 2020 – Aug 2020)**

- Developed and improved monitoring capabilities for cloud services.
- Wrote Golang programs to expose CPU performance and event metrics from Kubevirt containers.
- Scraped exposed metrics for Prometheus to build visual Grafana dashboards for the NVIDIA GPU Network platform.
- Tested and deployed code on Docker containers running under Kubernetes on virtual machines in a Linux environment.

Software Development Intern | Expedia (Search and Suggest Team) **(Jun 2018 – Aug 2018)**

- Worked on both front-end and back-end capabilities to improve Expedia's homepage search experience.
- Developed inline categorization of the types of search results, a heuristic-based location estimator to tailor search results, and a customer feedback tool for the quality of search results.
- About 700,000 customers per week interact with the features I built.

Project Manager | Data Science Society at Berkeley **(Sep 2019 – Present)**

- Led consulting team that built NLP models for *Fansure* to detect NBA & MLB teams referenced in articles.
- Analyzed the effectiveness of past marketing campaigns and built machine learning models (Multiclass SVM, Random Forrest, Neural Network) for *Monday.com* to predict the effectiveness of future marketing campaigns.
- Used unsupervised learning and EDA for *Paypal* to analyze their internal company rewards system.
- Optimized the NLP algorithms in a Facebook Messenger Chatbot for *Oust Labs* using Dialogflow and Rasa X running in GCP.

Computer Science Instructor **(Aug 2015 – Present)**

- Data Structures (CS 61B) Academic Intern: Reinforced concepts, answered design questions, and helped students debug code.
- Computer Science Mentors at Berkeley: Lead weekly sections teaching students concepts from Data Structures (CS 61B).
- Paid Instructor at Coding With Kids: Taught game design to students of different backgrounds and experiences (Rated 4.8/5).

Programming Projects (See https://pranav-sukumar.github.io/ for more projects not listed below)

- Edify: A Web App for instructors to upload a Zoom video recording and receive an email report of 4 student metrics: attention, emotion, topics of discussion, and common questions. Uses OpenCV, LDA, and IBM Watson to perform analysis.
- Signify: A Voice to ASL (American Sign Language) Translation App that enables enhanced live-lecture for members of the ASL-speaking community by intelligently converting a professor's speech to a sequence of ASL videos for the user to watch.

AWARDS AND HONORS

- Hack'20 Hosted by DubHacks (2020): Received the Google Cloud COVID-19 Hackathon Fund award for the project Edify.
- Cal Hacks 6.0 Sponsor Award Winner - Best Use of the Weights and Biases API (2019): Won the award, in a competition of 2000 students, for building an ensemble model of existing text-to-speech options for project Signify.
- Semifinalist for U.S. Presidential Scholars Award (2019): Selected by the White House Commission on Presidential Scholars and the US Department of Education. One of 620 students (out of ~3.6M graduating high school seniors) selected based on academic performance, perfect standardized test scores, and extracurricular activities.

PROGRAMMING LANGUAGES: Java, Python, Go, C#, JavaScript, HTML/CSS, SQL, Scheme

TOOLS, TECHNOLOGIES, AND LIBRARIES: Git, Docker, Kubernetes, Terraform, Packer, Jenkins, Keras, NumPy, Pandas