Tarang Srivastava

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Education

University of California, Berkeley • **Berkeley, CA** August 2019 – May 2022
Bachelor of Arts • *Computer Science* GPA: 3.85/4.0
Bachelor of Arts • *Applied Mathematics & Statistics Concentration*

South Brunswick High School • South Brunswick, NJ September 2015 – June 2019
• Outstanding Math Student • GSET nomination for Top 3 in class of 700 • Honor Roll GPA: 4.4

Work Experience

Undergraduate Student Instructor (TA) – UC Berkeley EECS Department June 2020 – Present
Berkeley, CA

- TA for CS70: Discrete Mathematics and Probability Theory, a 700 person class covering topics like logic, graph theory, RSA, computability, discrete and continuous probability, Markov chains and more.
- Responsible for heading discussion sections, creating course material and administrating course grading.

Software Engineering Intern – Vydia June 2018 – August 2018
Holmdel, NJ

- Worked on developing and maintaining web and mobile applications for artists and producers.
- Was part of a team of full-stack developers in Agile workflow.
- Used JS, react and react-native for featur development. Revamped internal DevOp setup with Docker.

Projects

Math Animations – YouTube May 2020 - Present

- Using 3B1B's Manim tool to create math animations to describe and visualize intricate math topics.
- Videos include topics about polar decomposition and paradoxical probability topics.

Recap – Stanford Hackathon February 2020

- Created a web application with React, to show local sourced news to a wider audience.
- With a primary focus on creating an interface that incites discovery.

Docker Migration – Vydia Internship July 2018 – August 2018

- Upgraded the entire teams development environment to use containerization tech.
- Saves around four hours in onboarding process, and around half hour per developer in daily usage.

LED Authenticator – NJ Hackathon May 2018

- Hardware device powered by Arduino and Android app to verify logins using AES.
- Provides a two-step authenticator in a fun way, to encoursage usage.

Gofer – Alpha Product March 2018 - August 2018

- Android app for creating a network for local commerce by requesting and completing tasks.
- Needed a way to get stuff from around our town so we created this app to request help from seniors.

Mousetrap/Electric Vehicle – Science Olympiad January 2016 - March 2019

- Created the most efficient vehicle with stored potential energy in mousetrap. Placed 3rd in NJ.
- Used Arduino to control vehicle to accurately drive a programmed distance. Placed 4th in NJ.

Technical Skills

- Programming languages: **Python**, **Java**, JavaScript, Swift, Kotlin, Matlab, LaTeX, HTML/CSS
- Software: Docker, Android Studio, XCode, Git, Unity, Linux, SQL, Tensorflow
- Other computer experience: MS Office Suite, GSuite, Photography, Adobe Photoshop
- Non-Technical: Agile workflow, experience teaching students, organizing events of 50+ people.

Highlighted Coursework

- **Computer Science:** Data Structures and Algorithms, Computer Programs, Android and iOS Development, Linux SysAdmin, Web Design, Designing Information Devices and Systems
- **Mathematics:** Real Analysis, Abstract Linear Algebra, Discrete Math, Probability Theory, Multivariable Calculus, Differential Equations, Numerical Analysis

Extra Curricular Activities

- Volunteer to tutor group of 4-5 students learning discrete math and probability theory, CS 70 at Berkeley.
- Social Chair in the Math Undergrad Student Association, hosting events to encourage math community.