

Gaurav Bhatnagar

gbhatnagar@berkeley.edu • linkedin.com/in/gaurav-bhatnagar • github.com/mech-a • gbhat.net

EDUCATION & COURSEWORK

UC Berkeley – Management, Entrepreneurship, & Technology Program

Aug. 2020 – Expected May 2024

B.S. Electrical Engineering & Computer Science, B.S. Business Administration, GPA: 3.75

Selected Coursework: Operating Systems & System Programming, Introduction to Artificial Intelligence, Efficient Algorithms & Intractable Problems, Probability & Random Processes, Signals & Systems, Introduction to Robotics, Data Structures & Algorithms

EXPERIENCE

Segmed (YC W20), Palo Alto, CA

June 2023 – Aug. 2023

Software Engineering Intern

Correlia Biosystems (YC W18), Berkeley, CA

June 2022 – Aug. 2022

Software Engineering Intern

- Implemented outlier removal algorithms for noisy n-channel fluorescent images to improve variability with NumPy, Pandas, and OpenCV in Python; reduced target metric of coefficient of variation by significant margin of 20%
- Designed, built, and presented real-time dashboard utilizing Plotly Dash and Pandas in Python that interfaced with power supply and pneumatic log files for remote maintenance of diagnostic assays; achieved <100ms latency

Dataherald (YC W21), Los Angeles, CA

May 2021 – Sept. 2021

Product Management and Software Engineering Intern

- Led the development of the Census 2020 visualization series by creating product requirements, programming FTP scraping script, and leading day-of release; achieved best-at-time 1st-day performance: >140,000 readers & 500,000 impressions
- Designed 10+ real-time, live visualizations by using Apache Airflow (AWS MWAA) to automate Pandas and Requests scripts in Python to scrape & send data to PostgreSQL and MongoDB (AWS DocumentDB) to store visualization
- Restructured 300GB PostgreSQL (on AWS RDS) table by tuning settings, rebuilding indices, and partitioning, and installing management scripts to reduce average query time from 3min to 20s
- Acted as Scrummaster to prioritize backlog of 50+ custom visualization requests with CEO & CTO to delegate to 5+ engineers

PROJECTS

- **FratBot (Python, ROS, OpenCV)** | Nov. 2022 – Dec. 2022: Designed ROS system on Rethink Robotics Sawyer platform to play beer pong by detecting cups via OpenCV and planning & executing a ball throw with Pyomo; played 3-cup game
- **Kutills (Python, Twitter, YouTube, Discord, Google Sheets APIs)** | Jan. 2020 – Feb. 2022: Developed Discord bot to report dead hyperlinks in Google Sheets; shipped alpha to server of 2,000+ users

COMMUNITY

UC Berkeley Department of EECS, Berkeley, CA

Sept. 2021 – Present

Undergraduate Student Instructor: Discrete Mathematics and Probability Theory

Jan. 2023 – Present

- One of ~20 selected to conduct section to 40 students, office hours, and proctor exams for core class of ~700 students
- Wrote onboarding document for graders to prepare them on efficiently grading homework and conducting helpful office hours

UpSync Consulting, Berkeley, CA

Sept. 2020 – Present

VP of Business Development

May 2021 – Dec. 2021

- Oversaw ~30 consultants and 9 project managers on consulting projects for start-up and midsize companies
- Co-led sourcing of 5 start-up to midsize companies among 9 project managers via LinkedIn messages and cold emailing

RESEARCH

Center for New Music and Audio Technologies, Berkeley, CA

Aug. 2021 – May 2022

- Completed research under SJSU Asst. Prof. Andrew Blanton on rendering live motion capture data into 3D virtual spaces
- Developed UDP-reading JavaScript client and Node.js server sending low-latency BVH data, successfully rendered in Three.js

SKILLS

Python (Pandas, NumPy), Java, C/C++, Rust, SQL, ROS, AWS (MWAA, EC2, IAM), MongoDB, PostgreSQL