

Rohan Jhunjunwala

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Education

University of California, Berkeley — Bachelor of Science, *Electrical Engineering and Computer Science (Fall 2018 – Spring 2020)*

GPA: **4.0** Honors: **Highest Distinction**, Graduated at age 19

Principles and Techniques of Data Science[†], Introduction to Artificial Intelligence[†], Database Systems[†], Efficient Algorithms and Intractable Problems[†], Data Structures[†], Discrete Mathematics and Probability Theory[†], Optimization Models in Engineering, Experimental Course in Mathematics (Proof based mathematics Seminar for the Putnam Exam)

Experience

Citadel — Nxt Software Engineer (June 2021 – Ongoing)

- Built dashboards using Python Flask to present investment professionals with a better quantitative understanding of risk.
- Using Splunk data-logging to expand test coverage based on real data further automated deployments to minimize support demands.
- First ever implementation of Gate testing blocking merges of problematic PR's reducing on-call burden.

Sambanova Systems — Software Engineer (June 2020 – 2021)

- Using Pytorch models with Erdos-Renyi random topology and found 10+ bugs in our Machine Learning compiler tool chain.
- Diagnosed numeral stability issues by finding random topology models with State-of-the-art (99.5%) accuracy on MNIST.
- Used Mixed integer programming (Gurobi, Python Bindings) reformulations of bin-packing and multicommodity routing to provide insight into on-chip resource allocation
- Designed visualization and analysis tools using frameworks like Pandas, Streamlit, and Tensorboard.

Booz Allen Hamilton — NASA International Space Station Developer Intern (Summer 2019)

- Built MSSQL database and CRUD frontend to track ISSInventory: automating a 60+ hours of manual documentation process.
- Designed python approximation algorithms for computational problems stemming from spacecraft dynamics and geometry

Berkeley Electrical Engineering and Computer Science — Teaching Assistant, Discrete Mathematics/ Probability (September 2019 – May 2020)

- Taught classes, organized office hours, and designed equitable assessments in 700 student course

UC Berkeley Student Tech Services — Web/Mobile Developer (January 2019–May 2020).

- Made the UCB app accessible and engaging to all students
- Mentored high school interns by introducing them to conventions and best practices in the Software industry.

Objective

Build world-class solutions.

Skills

Languages: Python, C/C++, C#/.NET, Java

Application Architecture: RESTful design, SQL, JS/HTML/CSS, MVC/Razor, Flask, PaaS (Heroku/Google Cloud Platform)

Quantitative Reasoning: Linear Algebra, Group Theory, Graph Theory, Number Theory/ Combinatorics, Statistics, Optimization (Mixed Integer Programming, Convex Programming)

Personal Projects

NASA Space-Apps Challenge Finalist:
(Disaster relief Chatterbot)

Y-Combinator Hackathon 2018:
(Python Flask app, RSA Student ID)

Java Minimax/Alpha-Beta Chess AI 3D renderer procedural terrain (Java)

Penn-Apps Hackathon:
(Gesture based playlist control (Java))

Esoteric Language Interpreter IDE (Java)

Digital Art/ Mathematical Simulations
(Mandelbrot, Physics, Linear PDEs)
(Java/JS/CSS)

ILP based solvers for Vehicle Routing and Matchmaking (gurobipy)

Academic Interests

Biologically Inspired Engineering
Complexity/Computability Theory
Computational Geometry
Computational Intelligence Modeling
Stochastic Systems

Recreational Interests

Cal Distance Running Club
1:41:18.96 Half-Marathon time (track)

Puzzling

Code-Golf (Shortest-Code wins)
Recreational Mathematics/
“Competitive Integration”
Board Games and Game Theory

Producer/Consumer of Academic

Satire (sigbovik.org):
“Pessimist” Algorithms
mipmip.org/tidbits/pasa.pdf