Nagaganesh Jaladanki

ganesh.jaladanki@gmail.com | 408-613-5775 | linkedin.com/in/nagaganesh | github.com/njaladan

Education

UC Berkeley, EECS BS '20
Highest Honors (GPA: 3.99 / 4)
Conc: Mathematical Finance

UC Berkeley, EECS MS '21 [ABD]
Theoretical Computer Science

Skills

Languages:
Python, C++, Solidity, Java, Ruby, React, HTML/CSS, Javascript, SQL, Scala

Technologies:
NumPy, AWS, Spark

Awards

EECS Outstanding GSI Award
Awarded to top 10% of student instructors per year

USACO Gold
Qualified to the Gold division of national high-school algorithmic programming contest

AIME Qualifier
Placed in top 1.5% out of ~170,000 students in national math contest

EECS Honors Program
Program for top EECS students involved in undergrad research

Kraft Freshman Award
Attained a perfect 4.0 GPA during the first semester (top 3%)

Efficient Compiler Winner
Placed 1st in compiler optimization class project competition

Stanford ProCo
Awarded 4th in a pool of ~50 teams at Stanford's algorithmic programming tournament

HSHacks II
Placed 2nd out of 1300 participants for building TFTI, a social networking web app

Traders@MIT Attendee
Selected to participate in quantitative finance competition

Experience

Stripe | Software Engineer Jun 2020 - Now
- Designed and built new top-level Stripe product, scaling product from 0 to $3M+/yr as tech lead
- Proposed and delivered data pipeline optimizations, saving $200k/yr (95% cost deduction)
- Redesigned user-facing pipeline architecture, cutting data latency by 75%
- Managed an intern and spun up 10 new hires through guided engineering projects
- [as intern] Proposed, ran user trials, and developed a paid data analysis tool for users
- Promoted after 5 months

D. E. Shaw | Quantitative Researcher Intern May 2019 - Aug 2019
- Researched high-dimensional and nonlinear manifold optimization for portfolio allocation
- Deployed strategies led to an annualized $6M+ saved in portfolio financing costs
- Developed a allocation strategy that attains 86% of the theoretical profit for portfolio rebalancing

UC Berkeley EECS Theory Group | Graduate Researcher Jan 2020 - Aug 2021
- Reduced existing lower bounds with a new distributed PCP model [preprint available]
- Improved best lower bound for black-box decision tree learning [preprint in-progress]
- Worked with Professor Avishay Tal on theoretical lower bounds and Boolean analysis

UC Berkeley EECS | Mathematics Head Teaching Assistant Aug 2019 - May 2021
- Head TA for Graduate Computational Complexity, Discrete Mathematics, Algorithms
- Rated an average of 4.94 on instruction quality and helpfulness (department average 4.33)
- Led a team of 40 TAs to develop course curriculum and hold weekly discussion sections

Berkeley Blockchain Lab | Distributed Systems Researcher Aug 2017 - Aug 2018
- Constructed and implemented system design for data flow on a layer-2 Ethereum protocol
- Developed a blockchain protocol for smart contracts with provably secure code execution
- Created blockchain transaction graph visualizations to quantify network usage patterns

CodeBase Consulting Group | ML Developer Jan 2018 - Dec 2019
- Managed team of 6 developers to build data pipelines for advertiser audiences
- Developed machine learning algorithms to set a dynamic price floor for ad-tech campaigns
- Final models achieved a ~13x profit increase when compared to the optimal static price floor

Greensparc Inc. | Blockchain Consultant Dec 2017 - Feb 2018
- Directly facilitated the interactions of $56,000+ in Ethereum and over 100,000 website hits
- Headed development for Greensparc's Cirrus Coin ICO for the Ethereum blockchain

Projects

SmartCard Mar 2021
- Linear optimization-based strategy to find optimal basket of CC bonus offers
- Formulates user purchasing history based on MCC into an integer linear program with constraints based on predicted spending and database of credit card offer rewards
- Strategy generated $10k profit over ~6mo period on $18k deployed capital

NESmerize Feb 2019
- Cycle-accurate Nintendo Entertainment System emulator with next-frame response times
- Contains sub-emulators for CPU, graphics, audio, input, and on-cartridge ASICs
- Precisely replicates hardware-level interrupts, unofficial opcodes, and scanline rendering
- Built using C++ and SDL2 graphics library

Etherball Jan 2018
- Fixed-jackpot lottery system for Ethereum with non-deterministic randomness algorithm
- Hit front page of /r/Ethereum (300,000+ subscribers)
- Full-stack DApp (decentralized application) built with Solidity, Node.js, and Bootstrap