Pranay Jain

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EDUCATION

- **Duke University** — Durham, North Carolina
  Master of Science in Computer Science; **GPA: 4** — *Aug 2021 – May 2023 (expected)*
  - **Coursework**: Machine Learning, Algorithms, Blockchain Consensus, Distributed Systems, Cryptography.
  - **Teaching Assistant**: CS330 - Design & Analysis of Algorithms.
- **The University of British Columbia** — Vancouver, Canada
  B.Sc. Computer Science and Mathematics; **Average: 82.5% (Equiv. GPA: 3.7/4)** — *Sept 2015 – May 2020*
  - **Awards**: Dean's Honor List (2015-16, 2018-19), Faculty of Science International Student Scholarship ($7,500), Outstanding International Scholar Award ($6,000).

EXPERIENCE

- **Modern Treasury** — San Francisco, CA
  Software Engineering Intern — *Summer 2022*
  - Built a custom autoscaling pipeline on the **AWS ECS** cluster running Sidekiq managing all async business logic. Improved performance under high load with average queue processing time down by 50% and job waiting time down by 45%.
  - Optimized provisioning and added autoscaling to an API service that improved availability with 10% fewer resources.
- **Hubly** — Remote
  Software Engineer — *Dec 2020 - Aug 2021*
  - Shipped core features and bug fixes to improve the app user experience. Tech-Stack: **React**, **Django**, **AWS**.
  - Created a new CI/CD pipeline on Bitbucket for automated on-demand PR deployments on AWS using **Serverless**.
  - Implemented end-to-end automated testing using **Cypress** and helped take code coverage from 0 to over 60%.
- **Dapper Labs** — Vancouver, Canada
  Software Engineering Intern - **CryptoKitties** — *May 2018 - Aug 2018*
  - Early engineer on the CryptoKitties team - helped revamp the NFT Marketplace that saw a 300% increase in activity.
  - Worked with the co-founder to prototype a new game based on collaborative art creation and ownership using NFTs.
  - KittyClicker (Side-Project): Created a CryptoKitties-based game that got **500+ downloads** on the Chrome webstore.
- **Collabware** — Vancouver, Canada
  Frontend Software Engineering Co-op — *Jan 2017 - Aug 2017*
  - In a team of 4, built the entire frontend for Collabspace, a Cloud Records Management service, in **Typescript** & **React**.

RESEARCH EXPERIENCE

- **Duke University; Supervisors: Profs Cynthia Rudin & Xiao Hu**:
  - Proposed a novel machine learning model to de-noise heart rate signals from smartwatches using Autoencoders.
- **UBC Lab for Computational Intelligence; Supervisor: Prof Kevin Leyton-Brown**:
  - Devised a generative algorithm that outputs constraint graphs for benchmarking spectrum auctions. It models data from a real-world auction and adds stochasticity to generate unique and realistic data to be used for analysis of auction designs.
  - Implemented an algorithm for efficient selection of summary statistics for fitting high-dimensional generative models.

PROJECTS

- **Differentially Private Proof-of-Stake**: Proposed a novel Proof-of-Stake blockchain election mechanism that uses Differential Privacy to provide anonymity and resistance to adversarial attacks against miners.
- **Build A City (Capstone project with ThinkingBox)**: In a team of 7, conceptualized and developed a **Mixed-Reality** collaborative game in **Unity** that allows players to construct virtual 3D cities using real building blocks (like Lego).
- **Rounders**: In a team of 2, designed & developed a social networking platform for cryptocurrency investors and blockchain enthusiasts to share insight. Rounders offered Slack-like chatrooms, 3rd-party integrations for news and curated blogs.