Palash Taneja

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EDUCATION

- **University of Texas at Austin** — Austin, TX
  Bachelor's of Science in Computer Science Honors; GPA: 3.86 — *Aug. 2019 – Dec. 2022*
  Operating Systems Honors, Data Structures Hon., Data Mining Hon., Computer Architecture Hon.
  Network Security Hon., Concurrency Hon.

EXPERIENCE

- **Bloomberg L.P.** — New York, NY
  Software Engineering Intern — *June 2020 - August 2020*
  - **Derivatives**: Worked on team doing real-time financial derivatives data analysis in Python.
  - **Data Science**: Built fault detection system for machine learning system using statistical methods in scikit-learn
  - **Backend**: Improved database queries, increasing performance for my workloads by upto **500%**.
  - **Full Stack**: Deployed a data visualization web-app in **Python (Flask)** and **React**. Project led to improved employee productivity by decreasing time to get metrics by **10x**

- **University of Texas at Austin** — Austin, TX
  Teaching Assistant — *Jan 2021 - Present*
  - **Operating Systems**: Taught **C++** for systems, multithreading, synchronization, and virtual memory to 50 students. Guiding students to build an operating system kernel and GUI from scratch.

- **University Computational Finance Club** — Austin, TX
  Director — *Spring 2020 - Present*
  - **Portfolio Management**: Managed a $10k portfolio. Created models for portfolio hedging, portfolio optimization and price forecasting. Also creating a strategy backtesting engine for simulating, backtesting strategies.
  - **WallStreetBets**: Pandas, React dashboard monitoring /r/WallStreetBets' topics for momentum investing

- **Facebook** — Mountain View, CA
  Content Creator — *June 2020 - Oct 2020*
  - **Platform**: Helped to create content and shape an early-stage Facebook iOS app targeted to my demographic

PROJECTS

- **CoronOS**: Functional Operating System kernel and GUI from scratch in **C++**, managed a team of 60 peers, and worked on porting a full kernel from x86 to **embedded systems** running ARM processors.
- **LoveSong**: Dating platform that matches people using a clustering machine learning algorithms based on their music taste. 500 users in 3 days. Backend in **Express.js, sqlite3**; ML in **scikit-learn**; deployed on **AWS Lambda**.
- **Dubit**: **Python** and **Node.js** platform that creates real-time translations of YouTube videos. **$100k grant from IBM** for making education more accessible in developing countries.
- **Vision**: Improves web-interactivity for visually impaired users by adding conversational navigation to Chrome. Browser extension in **JavaScript**, used Google Speech and Voice APIs
- **Basketball bets**: Compiled fantasy basketball betting data from rotogrinders and trained a tree-based model to pick teams and make predictions. Made $60k in backtests.

HONORS

- **Winner**: Apple Swift Student Challenge 2020, featured on apple.com, presented project to CEO Tim Cook
- **IOI**: Qualified for Indian National Olympiad in Informatics: programming contest for selecting India's IOI team
- **Winner**: Apple World Wide Developer Conference Scholarship 2019, presented project to CEO Tim Cook
- **Published**: Paper on detecting Parkinson's diseases using recurrent neural networks at **MIT IEEE URTC**
- **Grand Prize Winner**: Google Code-in, open-software development contest, worked on a machine learning visual IDE
- **Winner**: Enterpreneurship summit organized by University of Melbourne and ASES, Stanford University

PROGRAMMING SKILLS

- **Languages**: C++, Python, Javascript, SQL, Java, Swift, Go
- **Technologies**: AWS Lambda, React, React Native, Kubernetes, Tensorflow, PyTorch, Scikit-Learn, Pandas, Numpy