

Palash Taneja

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EDUCATION

- **University of Texas at Austin**

Austin, TX

Bachelor's of Science in Computer Science Honors; GPA: 3.85

Aug 2019 – May 2023

- Natural Sciences Waiver, highly competitive scholarship awarded to <10 students out of 12,000 undergraduates
- Machine Learning Honors, Computer Networks, Concurrency Hon., Network Security Hon., Operating Systems Hon.

EXPERIENCE

- **Bloomberg L.P.**

New York, NY

Software Engineering Intern

May 2021 - Present

- Designed a search engine architecture to serve user queries on news data visualization using **Apache Solr**
- Aggregated news user analytics in **C++** from a global news and user network using **Kafka**
- Organized a developer education program for using No-SQL over traditional SQL databases in Bloomberg News

- **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.

- **Bloomberg L.P.**

New York, NY

Software Engineering Intern

Jun 2020 - Aug 2020

- **Data Science:** Designed anomaly detection for machine learning system in **scikit-learn** using statistical methods
- **Backend:** Improved SQL 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 key metrics by 10x

- **University Computational Finance**

Austin, TX

Director

Jan 2021 - Present

- **Arbitrage:** Developed project in C++ to trade on arbitrage in virtual economies of games like TF2 and CSGO
- **SPACs:** Researched arbitrage in Special Acquisition Companies and products related to them: warrants

LEADERSHIP AND PROJECTS

- **Computer Architecture Research:** Researched on using machine learning methods (LSTMs) to find a cache replacement policy that has an 8.9% better cache hit-rate improvement over LRU
- **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 (AARCH64).
- **LoveSong:** Created a 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:** Created a **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.

HONORS

- **Jane Street SEE:** Among 32 students selected nationally for quant education program, played electronic trading games, attended lectures on Bayesian thinking, market-making, arbitrage, biases
- **Nexus Fellowship:** Selected for D.E. Shaw's sophomore fellowship program of about 30 students selected nationally
- **Apple Swift Challenge 2020:** **One of 3 students globally** featured on apple.com, presented to CEO Tim Cook
- **IOI:** Qualified for Indian National Olympiad in Informatics: programming contest for selecting India's IOI team
- **Apple WWDC Scholar 2019:** one of the 10 students nationally who 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

SKILLS

- **Languages:** C++, Python, Javascript, Java, Swift, Go, Rust
- **Technologies:** Kafka, Solr, Cuda, Pandas, Numpy, Scikit-learn, Tensorflow, PyTorch
- **Interests:** 3D Printing, Real-time Strategy games, Aviation, Weightlifting, Architecture, Soccer, Fashion