Jinay Jain

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EDUCATION

University of Delaware | B.S. in Computer Science, Honors — Expected May 2023

- GPA: 4.0/4.0
- President, Association for Computing Machinery | Distinguished Scholar (top 100 of 30,000 applicants)
- **Relevant Coursework:** Data Structures, Algorithms, Machine Learning, Robotics, Data Mining, Parallel Computing, Linear Algebra, Calculus III. Graduate-Level: Computer Vision, Artificial Intelligence

EXPERIENCE

Software Engineer — Sept. 2022 – Present
University of Delaware, NASA Turbulence Team | Newark, DE

- Developing software for NASA-funded turbulence research project, slated for launch to the ISS
- Designing robust experiment automation software in **Rust** for embedded hardware

Software Engineering Intern — Jun. 2022 – Aug. 2022
Virtu Financial (high-frequency trading firm) | New York City, NY

- Improved reliability of pub-sub order management system that handles **30%** of US retail stock orders
- Used garbage-free, low latency design patterns in Java to handle high throughput of incoming data

Machine Learning Intern — Jun. 2021 – Aug. 2021
Matician (autonomous robotics startup) | Palo Alto, CA

- Created robotic data collection pipeline to train self-supervised models and evaluate SLAM algorithms
- Implemented **Rust** concurrency patterns to deliver a **400% speedup** in video and keypoint recording

Software Engineering Intern — Jan. 2021 – Feb. 2021
schoolhouse.world (education-tech startup) | Mountain View, CA

- Implemented site-wide avatar customization with **React.js, Next.js** and **PostgreSQL**
- Helped scale from 500 to **10k users** through customer conversations and school district partnerships

HONORS/AWARDS

Best Natural Language Hack, TreeHacks – 1st prize among 1,600 participants at Stanford's hackathon — 2023
Neo Scholar – selected to join a community of the top CS students in the country — 2022
Intl. Collegiate Programming Contest (ICPC), Regional Bronze Medalist — 2022
U.S.A. Computing Olympiad, Gold Division — 2019

PROJECTS

Self-Driving 2D Racecar — Python, PyTorch, OpenCV

- Trained a convolutional neural network to play a racing game through **reinforcement learning**
- Implemented proximal-policy optimization to achieve human-level performance (demo)

Bounce — Rust

- Designed a ray-tracing graphics engine in Rust with support for .obj files, materials, and depth-of-field
- Optimized render time by implementing 3D data structures and multithreading parallelism

SKILLS

Languages: Python, C++, Rust, Java, HTML, CSS, JavaScript, TypeScript, SQL
Tools/Libraries: PyTorch, OpenCV, TensorFlow, React.js, Next.js, Git, Docker, Google Cloud