

Satvik Mudgal

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- (U.S. Citizen -- No sponsorship required)

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Education

Portland State University – B.S. in Computer Science

- Graduation: December 2025 | Portland, OR
- Operating Systems, Database Management, Data Clustering, Android/Java, Algorithms, Web Development, Data Structures, Systems Fundamentals, Computer Architecture, Cybersecurity and Network Defense

North Carolina State University – August 2021 - May 2023 | Raleigh, NC

- Discrete Structures, Foundations of Software, Basic and Advanced Java, Software Lifecycles

Research Experience - May 2024 - Present

Research Intern – Data and Internet Privacy Lab at Portland State University

- Led the generation of custom workloads in a collaborative project focused on reducing policy enforcement costs, directly improving query performance in data-intensive systems and IoT environments.
- Engineered and tested enterprise-scale usage patterns in the custom workloads which directly supported robust algorithm evaluation and testing.
- Presented original research (*"Evaluating the Effectiveness of Sieve in a Dynamic IoT Environment"*) at a university research showcase.
- Led an internal lab session presenting the third-party paper *"No Zero-Shot Without Exponential Data"*, analyzing its relevance to modern privacy challenges in AI.

Projects

Client-Server File Transfer – Linux, C, Sockets, TCP/IP, Multithreading & Multiprocessing

- Implemented a file transfer system over TCP using client-server architecture. Firmly understood TCP/IP protocols, ARPANET libraries, Socket Programming, and low-level system networking.

Airline Booking Application – 2 implementations – Java, REST API, Android Studio

- Full featured web implementation of an Airline Application using HTTP connections and the REST API
- Full featured Android implementation of the same application using Android Studio.

Web Hosted Chatroom – JavaScript, Node.js, React.js, MongoDB, UI/UX Design

- Used a full-stack website development lifecycle, connected to a MongoDB backend to host chat history, enabled user authentication, created user profiles, and strengthened UI/UX experience.

Certificates

- Google - Crash Course in Python
- Google - IT Automation with Python

Skills

- **Languages:** Python, Java, C/C++, JavaScript, SQL, HTML/CSS, Assembly
- **Databases:** PostgreSQL, MySQL, MongoDB
- **Frameworks and Tools:** React.js, Node.js, Android Studio, REST API, GitHub, GitLab, UNIX, System Verilog, HTTPS, Google Cloud Platform, Android
- **Other:** Linux, Shell Scripting, KaliVM, TryHackMe, CTFs, Vim, Emacs, VSCode, Eclipse, IntelliJ, Atom