Surendra Jammishetti

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Education

University of California, Santa Cruz **GPA 3.90**
Bachelor of Science in Computer Engineering *Aug. 2023 – Dec. 2025*

Relevant Coursework
Data Structures and Algorithms, Computer Systems and C Programming, Logic Design with Verilog, Discrete Math, Linear Algebra

Experience

Operating Systems Security Researcher Sep. 2024 – Present
Center for Research in Systems and Storage | Rust, Qemu, Kernel Programming *Santa Cruz, CA*

- Responsible for implementing the security primitives for a novel research operating system.
- Working with Professor Owen Arden to integrate Decentralized Information Flow Control into OS kernel.
- Reading papers in the field to design core security primitives with high efficiency.

Lead Software Engineer March 2024 – Sep. 2024
ConnectifyAI | Go, Python, Typescript, PostgreSQL, Docker *Santa Cruz, CA*

- Leading a team of **10** Undergrads and masters students, making important decisions such as deciding the tech stack, and managing the Gitlab Repository.
- Utilizing Go and PostgreSQL to create a performant REST API for our services
- Learned Docker and GitLab Runner to automate backend deployments.
- Working with Professor Marinescu to research viable, performant methods to chain multiple AI/ML models.

Software Engineering Intern June 2024 – Aug. 2024
LightLinks | Embedded Rust and C Programming, eBPF, XDP, Kernel Programming, Networking *Santa Cruz, CA*

- Engineered a Multi-Device system to facilitate a light-based network protocol.
- Utilized existing kernel frameworks, such as eBPF and XDP to implement project specifications.
- Lead the charge in migrating legacy C codebase to Rust for improved developer experience and reliability.
- Set up custom GitHub Actions runner to facilitate the building and testing of embedded networking software.

Projects

Term2Term | *Rust, gRPC, PostgreSQL, Docker, Github Actions* June 2024 – Present

- Programming a Rust TUI client capable of sending encrypted messages to other clients.
- Developing a server to store encrypted messages in database and direct messages between clients.
- Utilizing gRPC for performant type-safe communication across clients and server.
- Learning Peer-to-Peer communication to integrate into the client for complete user privacy.

CoupledCats | *Rust, Bevy, SQLite, Multithreading, Github Actions* August 2024 – Present

- Learning Bevy, a Rust game engine, to create a desktop application to connect clients with their significant others.
- Creating a strictly Peer-to-Peer platform for utmost privacy.
- Utilizing multithreading to run client / server processes along with the game engine event loop, using channels to facilitate communication.

Technical Skills

Languages: Rust, Go, TypeScript / JavaScript, Python, C/C++, SQL (Postgres), HTML/CSS
Frameworks: SvelteKit, Nuxt, Node.js, Django, Material-UI
Developer Tools: Arch Linux, Nix, NeoVim, Git, Docker, Kubernetes, Vercel, PlanetScale, Google Cloud Platform, VS Code, IntelliJ
Libraries: Tokio, Serde, React