NAME NAME

+91 1234567890 — email — linkedin.com/in/usere — github.com/Blaeriz — website

Skills

OS Linux, Windows
Languages Java, Python, Dart, TypeScript, C++, Rust
Frameworks React/Next.js, Flutter, Svelte, ROS2
Databases MySQL, Firebase, Postgres
Hardware STM32, ESP32, Arduino, RaspberryPI
SCM Git/Github

Experience

Onward Technologies **Jun 2024 – Jul 2024**
Software Engineering Intern

Client: Bentley Motors

- Conducted comprehensive Exploratory Data Analysis (EDA) to develop three proof-of-concept (POC) models for the marketing team, resulting in a 40% improvement in targeted campaign effectiveness and engagement metrics.
- Used Jupyter Notebook to collaborate with the team.
- Used Pandas, NumPy, SciPy, Matplotlib, Seaborn, Scikit-learn, Statsmodels, Ploty for cleaning data, processing data and display the data.

Dashboard

- Engineered an interactive dashboard utilizing Svelte to visualize cloud expenses from Azure, AWS, and GCP APIs, enabling real-time tracking of expenditures while integrating a forecasting feature that accurately predicted monthly costs with an 85% accuracy rate.
- I was the best SWE intern there (I was the only intern there).

WINspect Technologies Pvt. Ltd. **Dec 2023 – Jan 2024**
Website Developer

- built a multi-page comprehensive website that presents more than 20 products and services, resulting in a 40% increase in online engagement metrics within the first quarter of launch.
- Streamlined user experience through innovative design and intuitive navigation, leading to a reduction in site bounce rates by 30% and enhancing average session duration by 25
- Optimized website performance using SEO best practices, achieving a top-three ranking for target keywords and boosting organic traffic by 150%, significantly increasing brand visibility.

Projects

Limit Order Book Simulator — GitHub **Personal**

- Engineered a high-performance **limit order book matching engine in C** implementing price-time priority execution, achieving **240K+ order operations/second**.
- Designed cache-efficient data structures including a **red-black tree for O(log n) price lookup** and hash map for **O(1) order cancellation**, reducing lookup latency vs. linear search.
- Built a **multi-agent market simulator** with noise traders, market makers, and informed traders to model realistic order flow and market microstructure dynamics.
- Implemented memory-efficient order management using linked-list queues at each price level and dynamic agent registration to minimize allocation overhead.

ROS2 Visualization Environment — Workspace — Visualizer **Google Summer of Code 2025**

- Developed a modular client-server architecture in ROS 2 (Foxy and Jazzy), visualizing live node communication as Directed Acyclic Graphs (DAGs) using Svelte and Mermaid, with support for dynamic graph updates via service requests.
- Engineered and integrated ROS 2 packages using `rclpy`, `rclnodejs`, C++, and TypeScript; configured build environments with `colcon` and `npm`, and authored complete end-to-end READMEs for reproducibility.
- Proposed advanced visualization enhancements using D3.js and deployment with Tauri, showcasing foresight in scalability and cross-platform support.

PNT Monitoring Tool (Under Development) — Preview **Personal**

- Developed a web-based PNT monitoring dashboard inspired by Safran's SecureSync 2400 and White Rabbit, using Svelte, TypeScript, and Tailwind CSS to create a responsive interface for visualizing timing and synchronization data.
- Designed a modular frontend architecture to support future integration of MIB files for real-time display of PNT metrics, such as GNSS-based time synchronization and sub-nanosecond precision data.
- Planned and prototyped alert functionalities to enable proactive monitoring of network timing anomalies, aligning with White Rabbit's high-precision synchronization protocols.

Terminal-Based Chat System (termMC) — GitHub **Personal**

- Built a lightweight, terminal-based chat server and client in Rust, implementing multi-user communication using TCP sockets and multithreaded message handling.

- Designed a custom message broadcasting system that supports real-time updates, username prompts, and event logging, simulating Minecraft-style in-game chat mechanics.
- Added color-coded terminal output using ANSI escape codes to improve message clarity and UX, with plans for secure messaging and user authentication.

Education

Bennett University - 2027
Bachelor of Technology in Computer Science and Engineering
Specialization: Cyber Security

Certifications

- Google - Foundations of Cybersecurity
- ISC2 - Security Principles
- IBM - Introduction to Cybersecurity Tools and Attacks
- University of California San Diego - Data Structures
- IBM - Databases and SQL for Data Science with Python

Extracurricular Activities

Google Developer Groups on Campus Bennett University **Aug 2024 – Present**

- Served as Tech Track Lead
- Helped organize all events related to GDG

SPARK - Entrepreneurship Cell **Feb 2025 – Present**

- Served as Tech Team member