Kaustubh Pimparkar

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SUMMARY

Software engineer with 6+ years of experience building high-performance systems using C++, GoLang, Python, and AWS. Skilled in low-latency data processing, telemetry pipelines, and hardware-level optimizations across Linux environments. Proficient in developing secure APIs, real-time dashboards, and scalable microservices for mission-critical applications. Strong grasp of OS internals, memory management, threading, and concurrency, with a focus on building reliable, efficient, production-grade software across distributed and high-throughput systems.

SKILLS

- **Programming Languages:** Python, PHP, Hack, ES6, TypeScript, C++, Golang, Bash, SQL.
- **Libraries & Frameworks:** jQuery, ReactJS, VueJS, Node.js, Express,Vuetify, Vuex, Mongoose.
- **Tools & Platforms:** Git, Heroku, Firebase, UiPath, Kubernetes, GitHub Actions, AWS, Docker, Kafka.

EXPERIENCE

SkyCool Systems **June 2023 – Feb 2025**

Founding Software Engineer | *Python, ReactJS, AWS* *Mountain View, CA*

- Built an ETL-based data ingestion pipeline using Python to collect, transform, and store over 2 million sensor data points daily from edge devices into InfluxDB.
- Designed and implemented a ReactJS dashboard for visualizing equipment performance, environmental conditions, and real-time analytics, reducing diagnostics time by 35%.
- Implemented secure user authentication using JWT and role-based access control, with multi-tenant support for site-specific configurations and integrated Stripe for billing automation—resulting in smoother onboarding and centralized user management.
- Designed a robust sync mechanism for delayed sensor uploads, transforming locally cached data into structured Kafka events, achieving 99.5% end-to-end delivery reliability.

Arista Networks **April 2023 – Jan 2025**

Software Engineer | *C++, Go* *Santa Clara, CA*

- Created internal Go microservices for lightweight telemetry storage, supporting async ingestion and retrieval of device metrics, reducing database load by 20% and improving system responsiveness.
- Developed a high-performance telemetry module in C++, using memory-mapped I/O and lock-free data structures to stream metrics with sub-millisecond latency; integrated a custom in-memory time-series store optimized for reads, reducing query latency by 40% under load.
- Introduced custom instrumentation macros in C++ to profile hot paths, uncovering memory bottlenecks and improving throughput by 25% in core network agents.
- Developed automation tools using Go (GoLang) to reduce regression test time by 40%, validating over 20 software releases and enabling faster feedback loops for QA and firmware teams.

Union Bank of Switzerland **July 2017 – Feb 2021**

Software Engineer | *Python, Bash, TypeScript* *Pune, India*

- Contributed to IAM enhancements by implementing role-based access control (RBAC) using Python scripts and PHP services to strengthen financial data access controls, supporting SOX compliance and reducing security violations by 30%.
- Automated user provisioning workflows and audit trail generation using PHP and shell scripting, improving onboarding efficiency and audit readiness.
- Designed and implemented backend logic using Python and PL/SQL to automate core financial processes such as Account Conversion, Performance Scheduling, and Sub-Accounting, reducing manual effort by 20%.
- Developed a real-time risk monitoring dashboard using a PHP backend and a JavaScript (React) frontend, enhancing risk assessment visibility by 40% and reducing manual compliance checks.

EDUCATION

Santa Clara University, Santa Clara, CA **March 2021 – March 2023**

M.S in Computer Science and Engineering *CGPA - 3.72*

Relevant coursework: Advanced Computer Networks, Web&Mobile Application Development, Advanced Operating System, Advanced Database System, Distributed Systems, Cloud Computing, Computer Vision

THESIS/PROJECTS

Optimization of P4 Software Switches | C, P4 **June 2022 – March 2023**