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Professional Summary

Senior backend developer and technical leader with 7+ years experience building **robust, scalable, and high-performance backend systems and data platforms**. Proven expertise in driving **software excellence, optimizing cloud infrastructure (AWS), and delivering measurable business impact**. Specializes in **Python, distributed systems, and ML infrastructure**, adept at leveraging strong interpersonal skills to strategically align technical solutions with core business objectives.

Technical Skills

Languages: Python, Rust, Go, Java, SQL, Bash

Cloud & DevOps: AWS (Lambda, SageMaker, ECS, RDS), Terraform, GitHub/Bitbucket CI/CD, Docker, Postgres, Git, Linux

Tools & Platforms: Kafka, Splunk, Datadog, Cloudwatch, VSCode Dev Containers

Data & ML: JAX, Pandas, ML Ops, Data Architecture

Certifications & Leadership: AWS ML Blackbelt Graduate & Instructor; Lead Instructor for Backend & Architecture, Xerris Internship Program

Professional Experience

Qube Technologies Inc., Senior Software Developer, Team Lead | 2023 – Present

- **Spearheaded software quality improvements** by implementing fast, parallelized CI/CD builds, automated linting, and robust testing pipelines, resulting in **4x faster builds** and significant reduction in deployment bugs.
- **Reduced database costs by ~\$5k/month** by redesigning Postgres schemas and optimizing Timescale compressed tables
- **Optimized large-scale simulation workloads on AWS** using JAX/OpenXLA, **reducing runtime by ~40%** and cutting operational costs, accelerating methane detection decision-making.
- **Revolutionized local/remote GPU development workflows** with VSCode Dev Containers and AWS SageMaker Code Editor, **enhancing developer productivity** for compute-intensive tasks and **eliminating 100% of GPU driver-related debugging issues**.
- **Led the robust deployment and monitoring of predictive models**, enforcing IaC best practices (Terraform) and staged releases via GitHub to **streamline pre-release QA processes and reduce associated costs by ~\$4k/release**.
- **Provided technical mentorship** to junior staff and **drove architectural decisions** and code review processes, ensuring system integrity and team growth.

Xerris Inc. (Acquired by Accolite), Senior Software Developer, Practice Lead | 2020 – 2023

- **Founded and scaled the Data Science and ML Engineering Practice**, playing a pivotal role in the company's growth from a 10-person startup to a high-value acquisition.
- **Functioned as Principal Consultant for AWS cloud and data initiatives**, designing and **architecting resilient ML Ops pipelines and scalable backend systems** for diverse enterprise clients.
- **Recruited and mentored key engineering talent**, fostering their development into senior technical leaders within the organization.
- **Orchestrated a strategic shift to ML Operations (MLOps)**, successfully positioning Xerris as a market leader and **unlocking over \$1M in new client revenue**.
- **Cultivated strong client relationships** through deep technical expertise, consultative acumen, and trust, instrumental in securing and retaining major accounts.

Pason Systems, Software Developer | 2018 – 2020

- **Developed and launched a critical fleet monitoring dashboard**, utilized daily across the company to **reduce drilling interruptions by 10%** through proactive server failure detection.
- **Initiated and implemented field-data monitoring** for real-time anomaly detection, **dramatically improving post-deployment diagnostics** and operational stability.
- **Engineered greenfield web applications** in close collaboration with engineering and sales, including a production-grade torque and drag calculator that **delivered key new functionality to clients**.
- **Designed and deployed anomaly detection systems** utilizing custom EWMA-based algorithms to identify performance regressions in field-deployed Linux servers, **reducing human monitoring costs by 2x**.

Open Source Contributions

- **AWS Data Wrangler**: Contributed support for RDS and Redshift API access, enhancing the AWS open-source Python data ecosystem.
- **Serverless Framework**: Patched a critical Lambda layer bug in JavaScript/TypeScript, improving stability for users.
- **Dunst**: Developed new features for a popular Linux notification daemon (C), demonstrating strong system-level programming.
- **Ruff (in progress)**: Working on a performant Rust-implementation of pylint's E0611 and E0401, supporting the Python community's transition from pylint to ruff.

Education

B.Sc. Computer Science, University of Calgary – GPA: 3.8

B.A. Philosophy, University of Glasgow – GPA: 3.4