

Zachary Petersen

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Summary

Senior Software Engineer with a strong specialization in data and platform engineering, recognized for streamlining operations and achieving substantial workload reductions, including a 40+ hour monthly savings in data pipeline processing. Demonstrated ability to scale systems efficiently, supporting extensive user growth effectively. Committed to applying advanced engineering expertise to enhance system performance and deliver robust solutions in the target role.

SKILLS

- **Languages:** Python, Go
- **Databases:** DBT, SQL, PostgreSQL
- **Cloud:** GCP, AWS
- **Infrastructure:** Docker, Kubernetes, Terraform
- **Observability:** DataDog
- **Tools:** Django, CI/CD, LangChain, Kafka, Cursor, Claude Code

EXPERIENCE

Reserv | Senior Backend Engineer - Data

Oct 2024 - Present

- Collaborated directly with the CTO to develop new features and tools for our flagship Copilot product, which doubled the accuracy of claims and reduced manual work for adjusters by up to 10 hours weekly
- Architected and optimized scalable data pipelines and warehouse solutions, reducing claims adjuster workload by 40+ hours monthly and cutting DBT model runtimes by 28%.
- Built an AWS Textract-based pipeline that significantly increased the context awareness of AI tools, enabling faster and more accurate claims resolutions and improving operational efficiency for 100% of claims
- Reduced Docker image sizes by up to 76% and improved security posture, streamlining deployments and mitigating vulnerabilities across multiple repositories
- Standardized monitoring and dashboards in Datadog via Terraform and enforced codeowner reviews and testing coverage thresholds, elevating code quality and operational visibility organization-wide

Merit International Inc | Senior Backend Engineer - Platform

Jun 2022 - Oct 2024

- Scaled Core Services: Successfully scaled critical features including user authentication, notifications, data ingestion, and graph management in core Go microservices from initial deployment to a user base exceeding 250,000.
- Expanded integration test coverage by 60% across all core services, enhancing system reliability and reducing the risk of cross-service failures
- Developed a comprehensive integration framework incorporating services like Snowflake and Fivetran, designing a high-performance system that synchronizes over 3 million data entries per day
- Transformed the Notifications microservice from prototype to robust production infrastructure, creating a scalable solution capable of dispatching millions of daily communications

Neutron Interactive | Senior Backend Engineer - Platform

May 2021 - Jun 2022

- Team Expansion & Leadership: Recruited, onboarded, and guided two junior engineers, enabling strategic focus on system architecture and development. Fostered a collaborative environment, accelerating team productivity.
- Cloud-Native Deployment: Architected and built AWS ECS infrastructure, facilitating streamlined container orchestration for the SaaS platform, improving resource utilization, and streamlining deployment processes.
- CI/CD Automation: Designed and implemented a comprehensive GitHub Actions CI/CD pipeline from the ground up, automating build, test, and deployment processes and reducing release cycle times by 75%.
- Infrastructure Modernization: Transitioned from manual AWS console management to comprehensive Terraform-based Infrastructure as Code (IaC), ensuring consistent and version-controlled resource provisioning.

Neutron Interactive | Backend Engineer

May 2020 - May 2021

- System Containerization: Led the transformation of a legacy monolithic backend into a fully containerized architecture using Docker, enabling rapid, consistent deployments and improving environment portability across environments.
- Revenue-Driving Functionality: Engineered and established over 10 pivotal features for the SaaS platform, including the primary matching algorithm responsible for generating over 80% of company revenue.
- Quality Assurance Enhancement: Developed comprehensive unit and integration test suites, achieving over 80% code coverage across the entire system, ensuring robust and reliable software delivery.

EDUCATION

The University of Utah | Bachelor of Science (GPA: 3.8)

Salt Lake City, UT Aug 2014 - May 2017