

Education

Uppsala University, Uppsala, Sweden: Master of Science, Computer Science, Aug 2014 - Jun 2016.

Universidad Tecnológica del Perú, Lima, Perú: Bachelor of Science, Systems Engineering, Jan 2006 - Aug 2010.

Skills

Programming Languages: Go, TypeScript (TS/JS) (fluent), Python, SQL (proficient), Bash (intermediate), PL/SQL (prior).

Natural Languages: Spanish (native), English (fluent), Swedish (intermediate).

Cloud Providers: Google Cloud Platform (GCP) (proficient), Aliyun, Microsoft Azure (prior).

Experience

Senior backend engineer | *Sleip, VetTech. Stockholm, Sweden. Contract, Coody. Feb 2024 - today.*

- Led the redesign of the queue system, enabling seamless video job processing across on-prem, GKE and Cloud Run.
- Built a GPU-optimized GKE and Knative cluster for video processing, using spot instances and scaling to zero for cost efficiency.
- Optimized video storage, achieving a 50% reduction in storage costs by migrating to a regional archive solution.
- Replaced nGrok with a custom FRP solution to securely expose on-prem servers saving close to \$25 000 USD per year.
- *Tools: TS, Python, Firebase, Firestore, GCP, GKE (Google k8s engine), Cloud Run, Terraform, PubSub. FRP, Ansible.*

Technical product manager | *Volumental, FitTech. Stockholm, Sweden. Aug 2022 - Jan 2024.*

- Steered a 3-person infra team, overseeing roadmap, stakeholder collaboration, team recruitment and coaching.
- Spearheaded China's rollout by coordinating operations, architecting infrastructure, implementing scan data storage on Aliyun and GCP, and facilitating cross-functional collaboration with Sales, Legal, and Tech teams.
- Deployed GKE clusters with Istio for observability and zero trust security. Enabled A/B testing through traffic splitting, implemented OpenTelemetry with eBPF for auto-instrumentation, baked best practices into Helm Charts, and streamlined GitOps for simplified deployments.
- Championed a significant Terraform (TF) code consolidation project, transforming 17 repositories and over 50 builds into 1 repository and 2 builds, adeptly overseeing around 40 GCP projects and 6 CloudFlare DNS zones using TF modules.
- Reduced cloud costs by \$10 000 USD per year by replacing Spinnaker with ArgoCD for deployments.
- Upgraded 2 GKE clusters from v1.21 to v1.24, ensuring zero downtime and addressing ingress class and Dockershim deprecations.
- *Tools: Go, GCP, GKE, Istio, OpenTelemetry, Aliyun, CloudFlare, Kubernetes (k8s), ArgoCD, Helm, Terraform, GitOps.*

Infrastructure engineer | *Volumental, FitTech. Stockholm, Sweden. Oct 2019 - Jul 2022.*

- Optimized the recommendations endpoint, decreasing median latency from 3235 ms to 315 ms via binary caching, quadratic function refactoring, and pre-computation of ad hoc views.
- Collaborated in the design and implementation of an iOS app gateway and a personal data removal service. Also crafted tooling to enhance Docker builds in the backend.
- Aided in the migration of 17 GKE clusters to just 2, resulting in monthly savings of \$2 000 USD on cloud expenses.
- Trimmed deployment times by an average of 65% through strategic tuning of Spinnaker's configuration and infrastructure.
- *Tools: Go, Bash, Python, GCP, GKE, BigQuery, k8s, Spinnaker, Docker, Terraform, Redis, PostgreSQL.*

DevOps engineer | *ABB, Digital Twin. Stockholm, Sweden. Contract, Trelle Technologies. Dec 2018 - Sep 2019.*

- Rectified a MongoDB connection issue on Docker Desktop (MacOS) using a retry mechanism during API server startup.
- Championed a culture of test writing within the team, leading to approximately 90% coverage in API servers.
- Streamlined Azure VPS provisioning and configuration through the deployment of Ansible playbooks.
- Established CI/CD pipelines leveraging Azure Pipelines and Artifacts for both staging and production environments.
- *Tools: MS Azure, Python, NodeJS, JS ES6, Bash, Redis, MongoDB, Docker, Ansible, Nginx, Elastic.*

Full stack engineer | *Blocket, Marketplace. Stockholm, Sweden. Contract, Netlight. Jan 2018 - Nov 2018.*

- Developed insurance and banking integrations, boosting yearly revenue by 11% serving 5 million weekly visitors.
- Earned a team-awarded diploma for the successful implementation of a significant feature within the legacy codebase.
- *Tools: Python, JS ES6, NodeJS, PHP, Bash, PostgreSQL, ReactJS, Blocket Template, Selenium.*

Backend engineer | *Sambla, Fintech. Stockholm, Sweden. Nov 2016 - Dec 2017.*

- Spearheaded market expansion into Norway by successfully integrating with numerous banks.
- Enhanced codebase critical components by incorporating unit and integration tests, and upgrading the code from ES5 to ES6.
- *Tools: JS ES6, NodeJS, MongoDB, Docker, Elastic, Mongoose, Mocha, Chai.*

Full stack engineer | *International Labor Office (ILO), Dataviz. Lima, Perú. Contract. Aug 2013 - Dec 2015.*

- Crafted a web-based tool for dynamic data visualization, generating charts based on ranked economic, social, and eco indicators.
- By the second year, the project expanded from serving only ILO's Latin America office to all global offices.
- *Tools: SQL, JS ES5, PHP, MySQL 5.6, Google Charts API.*

Software engineer | *INtratego, ERP. Lima, Perú. Oct 2008 - Jul 2013.*

- Significantly reduced accounting book generation time from 30 minutes to 7 seconds by optimizing the stored procedure.
- Boosted database performance on both read/write operations via strategic Oracle server memory tuning.
- *Tools: SQL, PL/SQL, Oracle Database 11g, Oracle Developer Suite 10g, Oracle Application Server 10g.*

Projects

Facial emotion detection using deep learning | *Uppsala University. Uppsala, Sweden. Jan 2016 - Jun 2016.*

- For my master's thesis, I used deep learning to train an emotion-detection model, achieving 72.5% accuracy on the Cohn-Kanade dataset and 89.32% for top-3 predictions on the Affectiva-MIT dataset. *Tools: Python, OpenCV 2.4, TensorFlow 0.7.*

Mobile network assisted driving | *Uppsala University, Ericsson Research. Uppsala, Sweden. Aug 2015 - Dec 2015.*

- During the Project CS course, I co-developed a bus timetable engine using genetic algorithms, optimizing average wait times in a day to 2.36 minutes per passenger over 50 generations for 800 individuals. *Tools: Python, MongoDB, DEAP and SCOOP.*