Matthew LeVan

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EXPERIENCE

Systems Software Engineer   January 2023 – Present
Urbit Foundation   *Contract*
- Built heap memory allocation protection system using Rust and C FFI
- Implemented AES-SIV, ED25519, and SHA cryptography routines to spec
- Built a CLI tool for custom application backups and database truncation
- #3 top contributor to greenfield Nock VM written in Rust

Software Engineer   November 2022 – February 2023
Tlon Corporation   *Contract*
- Implemented new build system for runtime using Bazel in new repo
- Wrote GitHub Actions workflows for new repo's automated build, test, and deploy pipelines (CI/CD)

Software Engineer   December 2021 – November 2022
Wexpert Systems   *Contract*
- Built website with Urbit planet (NFT ERC-721 tokens) storefront using React, Remix.js, PostgreSQL, Fly.io, GitHub Actions, Stripe (credit card payments), and OpenNode (Bitcoin payments)
- Designed and implemented Seguro, a distributed database backend module written in C for dependable Urbit event log persistence
- Performed cost and viability assessment of running Urbit hosting services on Kubernetes

Infrastructure Engineer   July 2020 – December 2021
Clearview AI   *Remote*
- Wrote backend API routes and automated tests for user authentication with Flask, Python, and pytest
- Migrated entire company's infrastructure from bare-metal to Kubernetes on AWS cloud
- Dockerized and wrote YAML resource manifests and Helm charts for all backend and frontend services
- Bootstrapped development, staging, and production environments with Terraform + built all CI/CD

Data Engineer   January 2018 – July 2020
Honeywell   *Phoenix, AZ*
- Deployed ITAR-compliant Kubernetes cluster
- Wrote 10+ big data pipelines with Apache NiFi and Airflow

SKILLS

Skills: Distributed systems, build systems, DevOps, peer-to- peer (p2p), cryptography, automated testing, backend, databases, REST APIs, benchmarking, CI/CD, interpreters, memory safety, compilers, functional programming, concurrent programming, POSIX, UNIX
Languages: C, Rust, Python, SQL, TypeScript, HTML, CSS
Developer Tools: Linux, Docker, Kubernetes, Git, Helm, Terraform, Bazel, Nix, Autotools
Clouds: Amazon Web Services (AWS), Google Cloud Platform (GCP)

EDUCATION

California State University, Dominguez Hills   Carson, CA
Master of Science in Computer Science   *Aug. 2014 – Dec. 2017*