AMOD KALA

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EDUCATION

University of Waterloo — Waterloo, ON
B.A, Honours Economics — *April 2024*

· Coursework in machine learning, data structures, and functional programming

SKILLS

Languages Go, Python, Javascript
Technologies gRPC, PyTorch, XGBoost, React, Nix, Linux, Docker, Git

EXPERIENCE

Crafting — Palo Alto, CA (Remote)
Software Engineer Intern — *March 2022 - August 2022*

· Integrated AWS and GCP PKI providers into web platform's server-side authentication flow
· Enabled provisioning of NVIDIA GPUs in Kubernetes-on-EC2 development environment
· Improved capability of CLI to interact with remote and local Git repositories using syscalls
· Designed SQL benchmark suite to track platform performance across various configurations

SecureKey Technologies — Toronto, ON (Remote)
Software Developer Intern — *September 2020 - December 2020*

· Proposed an overhauled build process using bash scripts and multistage Docker builds, decreasing incremental build times by over 80% and reducing container image sizes 10x
· Built Go services that authenticate and store signed JSON-LD credentials as part of a sandbox web app for use in client presentations and to test new product features
· Extended the interoperability of an open-source, blockchain-based digital identity library used by several companies and government agencies

SecureKey Technologies — Toronto, ON
Software Developer Intern — *January 2020 - April 2020*

· Leveraged Golang and React.js to integrate experimental product features into a proof-of-concept web app as part of a successful initiative to renew an $800,000+ contract
· Implemented handshake protocol-based authentication using JSON Web Signatures and public-key cryptography to augment the security of backend web services
· Planned and ensured the success of company-wide events and initiatives with more than 50 participants as a member of the company's social committee

RECENT PROJECTS

Transformer PyTorch implementation of a decoder-only transformer model for text classification
Database Go implementation of LSM-Tree storage with Raft consensus for consistency
Nix Dotfiles Published Nix and NixOS configurations as a learning resource for new users
Hyperledger Contributed code to a Linux Foundation open-source DID framework