




# AMOD KALA

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## EDUCATION

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**University of Waterloo**

*B.A, Honours Economics*

Waterloo, ON

*April 2024*

- Coursework in machine learning, data structures, and algorithms

## SKILLS

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**Languages**     Go, Python, Javascript, SQL

**Technologies**     AWS Lambda, gRPC, PyTorch, React, Nix, Linux, Docker, Git

## EXPERIENCE

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**Crafting**

*Software Engineer Intern*

Palo Alto, CA (Remote)

*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**

*Software Developer Intern*

Toronto, ON (Remote)

*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**

*Software Developer Intern*

Toronto, ON

*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

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<b>Waitlist</b>	Serverless waitlist for a small business, processes thousands of events each month
<b>Transformer</b>	PyTorch implementation of a decoder-only transformer model for text classification
<b>Raft</b>	Go implementation of a distributed log with eventual consistency via Raft consensus
<b>Nix Dotfiles</b>	Published Nix and NixOS configurations as a learning resource for new users