Maneesh **Wijewardhana**

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Education

University of Guelph   *Guelph, ON, Canada*

Bachelor's of Computing, Honours Computer Science (Co-op)   *September 2020 - April 2025*

Skills

Languages   TypeScript, JavaScript, Python, Rust, C, PHP, Java, Bash, SQL, HTML/CSS

Technologies   Node.js, React, Express, Docker, Kubernetes, AWS, OAuth, PostgreSQL, MySQL, MongoDB, Terraform

Work Experience

Tulip Retail   *Kitchener, ON, Canada*

Software Developer Intern   *January 2024 - August 2024*

- Reduced onboarding and maintenance effort by 50% by designing and developing intuitive admin interfaces for the modular form builder "Customer Capture V2" using React and PHP, making form configuration self-serviceable
- Enabled precise CRM searches in the Clienteling app by integrating customer data into Apache Solr search engine, allowing clients to refine results based on outreach history
- Improved data integrity in a multi-million record CRM system by optimizing SQL queries for better performance and creating queries to resolve duplicate records
- Eliminated manual Git SHA searches by prototyping a Terraform parser tool using Node.js, extracting deployment metadata from infrastructure code to accelerate debugging workflows for engineers
- Drove adoption across 100+ stores by iterating on customer feedback and demonstrating value to stakeholders, leading to 3 new client contracts for Customer Capture V2

Tulip Retail   *Kitchener, ON, Canada*

Software Developer Intern   *May 2023 - August 2023*

- Eliminated form maintenance overhead by developing a modular customer form system called Customer Capture V2 using PHP, TypeScript, and React, allowing full customization of widgets and layouts
- Cut build times by 50% on frontend services by leading the migration from Webpack to Vite, identifying key bottlenecks and optimizing the build pipeline to enhance developer efficiency
- Reduced developer context switching by creating a Mattermost editor plugin in Lua, allowing engineers to quickly format and preview messages within their code editor

NCR Corporation   *Waterloo, ON, Canada*

Software Developer Intern   *September 2022 - December 2022*

- Enabled real-time data exchange for Teller Cash Recycling (TCR) machines by developing Java/Spring API endpoints integrating with Kafka, ensuring seamless communication between banking systems and cash-handling hardware
- Accelerated feature implementation by designing high-level sequence diagrams, breaking down complex workflows into clear, actionable development steps
- Reduced manual testing reliance by implementing an automated Cucumber test suite, writing behavior-driven tests to improve test coverage and catch regressions early

Distributive (Formerly Kings Distributed Systems)   *Kingston, ON, Canada*

Software Developer Intern   *May 2022 - August 2022*

- Achieved 85% test coverage by designing and implementing component tests for Compute, Wallet, and Protocol APIs in a distributed computing platform
- Enhanced cloud computing efficiency by contributing to core Node.js libraries for DCP (Distributed Compute Protocol)
- Developed a Ray tracing engine in JavaScript alongside a colleague for a company-wide hackathon, leveraging DCP's distributed processing power to accelerate image generation by approximately 50%, showcasing the potential of the platform

Projects

Homelab | *K3s, Flux, kube-vip, Longhorn, Traefik, cert-manager, SOPS, Renovate*   *View*

- Built a self-hosted Kubernetes cluster running on Raspberry Pi 5 machines using the K3s distribution, Flux for GitOps, and Renovate bot for auto PR's to Github
- Utilized kube-vip for load balancing, Traefik for reverse proxying and ingress handling, Longhorn for persistent storage across nodes, cert-manager for provisioning SSL certificates, and SOPS for secrets management

Watch Together | *Rust, TypeScript, React, Tanstack, Tailwind, AWS S3, PostgreSQL, Docker*   *View*

- Developed a real-time video streaming platform using WebSockets, enabling synchronized playback across multiple users
- Implemented secure OAuth authentication, video library management, and rate limiting with a Token Bucket Algorithm

MarkdownEdit | *Rust, TypeScript, React, Zustand, Tailwind, PostgreSQL, Docker*   *View*

- Designed a markdown editor enabling users to securely log in via OAuth and manage their collection of markdown documents
- Implemented features including live preview, creation, editing, deletion, and seamless exporting to HTML format for portability

Buddy | *TypeScript, Node.js, AWS Lambda, API Gateway, DynamoDB, Bedrock, Terraform*   *View*

- Created an AI terminal assistant using AWS Bedrock (Llama3.3-70B) to provide guidance on Linux commands and programming queries
- Designed a serverless architecture with AWS Lambda, API Gateway, and DynamoDB, enabling secure, scalable interactions alongside API key authentication, rate limiting, and IaC via Terraform