Alec Di Vito

Skills

- o Proficient: Javascript, Typescript, Node.js, React, Rust, Golang, Python, HTML, SCSS, SQL
- Familiar: C++, C#, C, Swift, Java, Kotlin
- Tools & Libraries: Kubernetes, Docker, Linux, Azure, Heroku, Github, Git, AWS, Jenkins, Bash, Terraform, RabbitMQ, MacOS, Git, Postgres, Redis, Web Assembly, Semantic Release

Education

Honours Bachelor of Computer Science

Sheridan College, Oakville, ON (2019-2021)

Advanced Diploma in Software Development and Network Engineering

Sheridan College, Oakville, ON (2015-2018)

Work Experience

Senior Cloud Engineer at Royal Bank of Canada (RBC) full-time Apr 2023-Present

- Added options into a custom yaml manifest file to support passing debugging variables into Terraform Enterprise
- o Engaged in updating our public documentation to align it with the current capabilities of our platform
- o Supported initiative to introduce extra run tasks into our automation for deploying workspaces inside of TFE
- Fixed various bugs and code smells inside of the platforms micro services
- o Overall team goal: provide teams at RBC the ability to build their own infrastructure with Terraform
- Leveraged knowledge in Python, Flask, Golang, Bash, Azure, Kubernetes, Jenkins, Terraform

FullStack Javascript Developer at RBCx (Ownr) full-time Jan 2022-Apr 2023

- o Led development on a micro-service for building and sending emails as well as collecting analytics on them
- Implemented email campaigns for sending emails out on a schedule
- o Created script to automate creating review apps on Heroku when Github integration was disabled
- o Demonstrated in a presentation the viability of Kubernetes by running a part of Ownr.co on it
- o Engaged in hiring, onboarding, and mentoring co-op students through feature developments of refer-a-friend
- Contributed to production support by quickly debugging, identifying, and fixing customer found bugs
- Leveraged knowledge in Node.js, Javascript, Typescript, React, Heroku, RabbitMQ, Postgres, Github, Circle Cl, Jest

FullStack Developer at Royal Bank of Canada (RBC) full-time May 2021 - Aug 2021

- o Implemented frontend features: progress banner for payments and HTTP polling for payment status
- o Developed proof-of-concept search for finding business payees from multiple payee databases
- Effectively debugged, identified, and fixed bugs on the frontend: loading issues, correcting content, styling bugs
- Created proof-of-concept application which automates pull requests into Github repositories when content designers create translation changes. Application would attempt to find translation files inside of repository
- o Overall team goal: build RBC next generation business payment portal utilizing Angular and Backbase
- o Leveraged knowledge in Angular 8, RxJS, Typescript, Java, Kotlin, Spring Boot, Vue 3

Cloud Developer at Royal Bank of Canada (RBC) full-time Jan-Aug 2020

- o Designed, built and deployed Kubernetes cronjob that shuts down dev machines during non-workday hours
- Added functionality to RBC Kubernetes operator onboarding and deployment CRDs for RBC specific workloads.
 Specifically added support for Kubernetes Job, CronJob, and Horizontal Pod Scaling CRD
- Designed, architected, built and deployed React frontend to allow engineers quick access to the current state of deployed RBC applications on different AKS clusters which helped teammates reduce team debugging time
- o Built multiple deployment and test pipelines with Jenkins for frontend, backend and cronjob applications
- Overall team goal: build RBC's application deployment pipeline giving bank developers access to Azure cloud services such as Azure Cache and Azure SQL through AKS (Azure Kubernetes Service)
- Leveraged knowledge in Azure, Docker, Kubernetes, Jenkins, Bash, Golang, Java, React, Typescript, Python

Software Developer at Center for Mobile Innovation part-time Jan-Apr & Sep-Dec 2019

- o Researched fall detection for elderly care with PointClickCare; developed emotional recognition model for Encore
- o Developed solution with 80% accuracy to estimate fall detection utilizing human poses and machine learning
- Created real-time Facial Expression Classifier Emotion detection model with accuracy of 75%
- o Communicated with stakeholders and presented final project to PointClickCare and Sheridan during at showcase
- Leveraged knowledge in Python, TensorFlow 2, Matlab, Node.js, C++ and Typescript

Major Software Projects

Wasm Compute (Personal Project) (In Progress) – read more

- o A Web platform that builds rust programs into many small web assembly functions
- o Developed host library that users interact with for accessing the host machine
- Built a CLI for compiling rust projects and uploading them to the the web platform
- o Used AWS and terraform to deploy infrastructure, software onto EC2 instance and wasm binaries inside S3 bucket
- o Currently working on providing users filesystem access to host machine
- o Planning to make it a distributed system using distributed hash tables
- o Leveraging knowledge in Rust, WASM, Golang, React, Typescript, AWS, Terraform, Postgres, Github, Nginx

Budgetise, a Budgeting application for Franchise Owners (Capstone Project) Jan-Dec 2017 - read more

- o Collaborated with a team of four to produce a solution to a franchise owner's problem
- o Designed and developed a budgeting application with features like live updating and change history
- o Leveraged knowledge in Angular 2+, Typescript + Node.js, Express, Postgres, Digital Ocean, Nginx, Auth

Minor Software Projects

Personal Website - github / website / read more

- o Developed in Gatsby, using markdown to generate content using BEM styling methodology for CSS
- o Leveraged knowledge in GatsbyJS, GraphQL, Javascript, Git, Markdown, Adobe XD

Tokactor (Actor Model Library in Rust) - github / crates.io

- o Built a Actor Model Library in Rust. Built mostly as a layer on top of tokio, an async runtime in Rust
- o Leveraged knowledge in Rust, Semantic Release, Github, Github Actions, Async Programming

Bomb Finder (Minesweeper Clone) - github / website / read more

- o A minesweeper clone with added features to save games, save statistics as well as customize look and feel of game
- o Leveraged knowledge in Typescript, React, IndexDB, Canvas2D, Git

Hackathons

RBC AmpHack Igloo Connect - Jan 10-12th 2020 - github

- Placed 3rd overall competing against 14 teams with idea Igloo Connect which helps immigrants come to Canada
- Helped by leading team in brainstorming and creating React tech demo to be used inside of presentation
- o Leveraged knowledge in React, Typescript, Presentations

RU Hacks Work Spaces - May 15-17th 2020 - devpost

- Built in the browser, users could connect to each other over WebRTC and talk to each other over the internet. I
 worked on developing the game canvas as well as the WebRTC connection between the server the clients
- o Leveraged knowledge in Typescript, Nodejs, Phaser, Socket.io (Web Sockets), Express, WebRTC, GCP

Volunteering and Extracurriculars

Hackademics Vice President, Fall 2020-April 2021

- o Secured \$12 000 support from RBC, Sheridan Sustainable Department, Sheridan Student Union for Hackville 2021
- Lead team of 4 in developing <u>hackville.io</u> and <u>hackademics.club</u>. Leading team to develop backend applications to be deployed on digital ocean to support club functions
- Determining the direction of club engagement, development and virtual participation.
- Helped run a weekend long hackathon to 75+ people.