Alec Di Vito

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Skills

- **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
- Engaged in updating our public documentation to align it with the current capabilities of our platform
- 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
- **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**

- 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
- Created script to automate creating review apps on Heroku when Github integration was disabled
- Demonstrated in a presentation the viability of Kubernetes by running a part of Ownr.co on it
- 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 CI, Jest

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

- Implemented frontend features: progress banner for payments and HTTP polling for payment status
- 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
- **Overall team goal**: build RBC next generation business payment portal utilizing Angular and Backbase
- **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**

- 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
- 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**

- Researched fall detection for elderly care with PointClickCare; developed emotional recognition model for Encore
- 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%
- 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

- A Web platform that builds rust programs into many small web assembly functions
- 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
- Used AWS and terraform to deploy infrastructure, software onto EC2 instance and wasm binaries inside S3 bucket
- Currently working on providing users filesystem access to host machine
- Planning to make it a distributed system using distributed hash tables
- **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

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

Minor Software Projects

Personal Website - github / website / read more

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

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

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

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

- A minesweeper clone with added features to save games, save statistics as well as customize look and feel of game
- **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
- **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
- **Leveraged knowledge** in Typescript, Nodejs, Phaser, Socket.io (Web Sockets), Express, WebRTC, GCP

Volunteering and Extracurriculars

Hackademics Vice President, *Fall 2020-April 2021*

- Secured $12 000 support from RBC, Sheridan Sustainable Department, Sheridan Student Union for Hackville 2021
- Lead team of 4 in developing hackville.io and hackademics.club (now decommissioned). 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.