

Vincent Zvikaramba

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Education

2021 **Honors BSc**, *University of Toronto*, Statistics and Computer Science

Skills

Languages Python, Bash/Unix Shell, TypeScript/JavaScript, C/C++, Java, SQL
Infra/DevOps Docker, Ansible, GitLab, Gerrit, Jenkins, BuildKite
Other Debian/RedHat-based systems, Git, Android Build Systems, SE Linux, CloudFlare API

Experience

Jun 2025 – **Developer**, *Client Management System*, South-Asian Women's Rights Organization, Toronto
Present

- Redesigned PHP and SQL based CMS using Django and Python3 on back-end, and React with Next.js for routing on the front-end, ensuring future scalability and maintainability.
- Used Django Rest Framework to build REST API for communication between front-end and back-end.
- Used Celery for task queuing and Redis for thread communication, caching and concurrency locking on the back-end in Django.

Apr 2022– **Full Stack Engineer**, *TitanFile Inc*, Toronto

Accomplishments

- Migrated from Python3.8 to Python3.11 as DRI of Infrastructure, improving Python performance by 20%.
- Optimized GitLab CI jobs as DRI of DevOps to skip unneeded or unchanged jobs, speeding up testing pipelines by 10%.
- Implemented MS365 integration from scratch to allow enabling seamless document editing; and reduced technical debt by adopting TypeScript in the code-base and creating a template for future front-end development in TypeScript and React.
- On-boarded and mentored 3 new engineers; directly mentoring one engineer to become DRI for MS365 integration development.
- Created new React components and views as part of Admin Settings Console rewrite on the front-end, implementing 90% of views according to requirements within 3 months.
- Resolved performance bottlenecks in PDF watermarking of large files on the back-end, reducing downtime and memory usage by 10% and allowing for more responsive PDF previewing of large files on the front-end.
- Reduced memory usage and increased up-time by analyzing slow database queries causing crashes, using SQL commands on the back-end to optimize slow Django queries.
- Implemented React Router routing as part of front-end rewrite, simplifying browser-side navigation.
- Updated DocuSign integration to accept JSON web-hooks, increasing security by using more secure XML parser implementation and enforcing future usage of JSON web-hooks, while maintaining compatibility with older XML-based web-hooks for a seamless update.
- Ported legacy Marionette views to React in TypeScript, improving code readability, reducing technical debt and minimizing uncaught bugs.
- Leveraged React Context API on the front-end to manage and share state between components, improving the scalability and maintainability of the application.

Responsibilities

- Updated Ansible templates for services running on CentOS instances to patch security scanner vulnerabilities, helping adhere to OWASP Top 10 and maintain security compliance scores.
- Participated in code reviews, helping enhance code quality, improving maintainability and reducing bugs by encouraging usage of TypeScript over JavaScript and type hinting in Python.
- Translated Figma designs into fully responsive and interactive front-end components using React, TypeScript and SCSS, with a focus on code and asset re-usability through usage of standard icon sets such as Font Awesome.
- Wrote code and handled data with security in mind, ensuring HIPAA and GDPR compliance.
- Collaborated with other DevOps team members to migrate legacy virtual machine based systems to containerized environments using Docker.
- Created and maintained Bash shell and Python scripts to run scheduled jobs or perform back fills and administrative tasks on the back-end.

- 2021 **Website**, *Promatec Solutions*, South Africa
- Built and deployed a responsive containerized web application from scratch using React and TypeScript on the front-end and NodeJS on the back-end in a month.
 - Built custom email solution using bespoke containers running postfix and dovecot.
 - Utilized Docker for streamlined deployment and Gerrit Code Review for team collaboration.
 - Automated DNS record management for website and email solution using a Python script integrated with CloudFlare API.
- Sep 2016– **Teaching Assistant (Software Tools and Systems Programming)**, *University of Toronto*
- Sep 2017
- Covered weekly lecture materials and helped students with assignments during labs, with an emphasis on learning Linux system tool usage and debugging using Valgrind, GDB and IDEs to identify errors in code.
 - Evaluated programming submissions, delivering detailed feedback to guide student improvement.
 - Supported course assessment by proctoring exams and coordinating with other TAs and with lecturer during grading.
- Aug 2015– **Maintainer**, *LineageOS Android Distribution*
- Dec 2020
- Created and maintained device trees for Samsung devices past official security or release update support.
 - Configured and used GCP to spin up Debian-based build server instances based on GitHub web-hooks and BuildKite.
 - Deployed Jenkins, then BuildKite, to automate builds on code submission in Gerrit and GitHub.
 - Wrote and maintained Linux shell and Python scripts to perform full Android builds and upload artifacts to cloud storage and distribution.
 - Merged board-specific kernel code from CodeAurora Forums (now CodeLinaro), AOSP common, and LineageOS to maintain kernel compatibility and provide security patches with new Android releases.
 - Updated older Linux kernel vendor code to keep up with major changes in AOSP driver interfaces.
 - Implemented shim libraries in C/C++ to allow use of older proprietary vendor modules after Hardware Abstraction Layer (HAL) ABI changes in AOSP, ensuring device compatibility between major Android releases.
 - Analyzed system logs from Android devices to debug code, identify and fix SELinux security policy issues and ensure fully functionality while maintaining compatibility and security between Android upgrades.