Chamoda **Pandithage**

SOFTWARE DEVELOPER

Colombo, Sri Lanka

📱 (+94) 777 241 455 | ✉ hello@chamoda.com | 🏠 www.chamoda.com | 💾 chamoda | 💼 chamoda-pandithage

Summary

9+ years experience specializing in Fullstack (6+ years with Python) + DevOps + Leading Teams. Interested in Startups / RnD type of work. Can adapt to work on any timezone.

Skills

Backend	Python (Flask, Django, Werkzeug), Postgresql, MySQL, MongoDB, NodeJS (Express, Websockets), Redis, Hyrda OAuth, Selenium
Frontend	Javascript/Typescript (React, NextJS), JAMstack, Tailwind
DevOps	Docker, AWS, GCloud, Cloudflare, CI/CD, Kubernetes, Istio, ArgoCD, Ansible, GitOps, Bash
Data/ML	NumPy, Pandas, SciKit-Learn, Matplotlib, Jupyter, OpenCV, Elasticsearch, Kafka

Experience

Brillient Investment Publishing Pty Ltd
Sydney, Australia (Remote)

TECHNOLOGY CONSULTANT — *Jun. 2019 - May. 2023*

- Built an event management platform with real-time chat using a Flask backend and socket.io. To support the requirement of initial 2,000 concurrent users and for future-proofing, used an architecture of multiple socket.io instances with Redis pub/sub. Configured websocket servers to autoscale using Kubernetes HPA (Horizontal Pod Autoscaling) features.
- Unified authentication for 6 Python web applications (Werkzeug and Flask) with OAuth 2.0 SSO using Ory Hydra authentication server.
- Maintained a high availabilty GKE Kubernetes cluster of 120GB ram totaling all compute nodes. Used istio service mesh, argocd, sealed secrets and cert-manager
- Implemented RQ (Redis Queue) to improve performance and traceability of background tasks. Also used Redis to implement caching layers for microservices.
- Improved existing applications by migrating them to a microservice architecture to support the "Twelve-Factor App" methodology.
- Built a custom Markdown editor with a unidirectional realtime Markdown transpiler, using Vue.js and the markdown-it library, to convert flavored Markdown to custom-styled HTML. Later, utilized the same editor to create cross-platform HTML emails with support for Outlook clients (using ghost tables).
- Started the practice of writing unit tests and functional tests with pytest and Selenium, and improved the code coverage of main codebases from 0 to 95%.
- Migrated and maintained dozens of microservices into a Kubernetes cluster to support high-traffic situations. Configured pre-emptible nodes in GKE (Google Cloud) for cost-effectiveness and utilized HPA to scale according to traffic demands.
- Built and maintained Elasticsearch index with search and recommendation functionality, alongside a High Availability PostgreSQL server with read replica.
- Implemented CI/CD workflows with GitHub Actions for the organization (7 internal projects) to deploy to Kubernetes. Used declarative GitOps with ArgoCD to achieve version controllable lifecycle management.
- Built a real-time dashboard using Grafana to overview key organization metrics.

Insharp Technologies (Pvt) Ltd
Colombo, Sri Lanka (Onsite)

CHIEF ARCHITECT — *Jun. 2018 - Jun. 2019*

- Led a team of 12 software engineers, guiding them on various aspects of software development, including system security, best practices, technology selection, devops integrations etc.
- Led a team for an HR startup. Utilized Django (with DRF) + React. Developed a conversational AI using the Rasa platform by training custom NLP models.
- Led an internal research project called "Talking Trees," building a big data platform to analyze electrical signals from trees. Built the initial platform using Arduino, Python (Flask), and PostgreSQL. Wrote related firmware in C.
- Implemented scalable cloud architecture (in AWS) with load balancing for a well-known fintech mobile app in Kuwait. Additionally, implemented best security practices for the project.

SOFTWARE ENGINEER — *May. 2017 - Jun. 2018*

- Played the role of sysadmin for the company and implemented and maintained core cloud tools, including self-hosted source code control using GitLab, mail servers, and various cloud services on AWS."
- Built an IVR (Interactive Voice Response) platform using Asterisk PBX that send out automated calls to 10,000 users daily. Additionally, users could call in and interact with dynamic IVR responses
- Built a hybrid mobile appliction using Xamarin to analyze mining related images in realtime using OpenCV for a Australian goverment project. Used Python with opencv, numpy for prototyping vision algorthms, then port them to C# to be used with OpenCV integrations

- Worked on Google Glass application platform for a medical startup based in the USA. The platform can create (generate APK files) apps that are installable on Google Glass and can be utilized in medical and industrial situations.
- Worked on various iOS (Objective-C, Swift) and Android (Java) mobile applications for several small-scale startups.
- Worked on full-stack web applications using PHP (Laravel) and developed API backends for mobile applications.

Writing

2017   **Public-key Cryptography Explained**,

2017   **Real time face detection using OpenCV and Python**,

2017   **Introduction to Machine Learning with Linear Regression**,