

TECHNICAL SKILLS

Languages: **Python, Go**

Database: **DynamoDB, ElasticSearch, SQL (Postgres)**

DevOps and Cloud: **AWS (Lambda, API Gateway, CloudFormation, CDK, CodePipeline, CodeBuild, Health-Imaging, OpenSearch)**

Containerization: **Docker (AWS ECS, ECR), Kubernetes (AWS EKS)**

Development Architectures: **Serverless, Microservices, Event-Driven Architecture, TDD, DevOps**

ML Tools and Frameworks: **Numpy, OpenCV, Tensorflow, Keras, PyTorch, SciPy, Scikit-learn**

CERTIFICATIONS

AWS Certified Solutions Architect - Associate

12/2024

PROFESSIONAL EXPERIENCE

Data/ML Engineer | Curvebeam AI Ltd (ASX: CVB) | Melbourne, Australia

10/2021 – 11/2024

- **Medical Image Processing Pipeline Development on AWS**
 - Developed and deployed pipelines on AWS to process CT scan images and generate bone health diagnoses.
 - Transitioned services from **EC2** instances to AWS **Lambda** functions, leveraging serverless architecture for enhanced scalability and cost efficiency.
 - Collaborated closely with web and design teams to troubleshoot and resolve **API** integration issues.
 - Analyzed failure causes and bottlenecks, refactored code for improved error handling and streamlined processing with AWS **CloudWatch** and **DataDog**.
 - Moved complex and resource-intensive jobs from **Lambdas** to **Kubernetes** for increased scalability and orchestration.
 - Engineered image processing workflows using **Go** and **Python** to develop and maintain the SaaS system.
- **CI/CD and DevOps Expertise**
 - Automated pipeline deployment and updates using **Infrastructure as Code (IaC)** tools such as **GitHub Actions**, **CloudFormation** and **CDK**.
 - Acquired proficiency in **Go** programming, successfully migrating our microservices from **Python** to **Go**.
 - Applied **Test-Driven Development (TDD)** practices, creating and executing unit and service tests to ensure code fidelity and reliability.
 - Designed and implemented tests for edge case scenarios, enhancing code maintainability and preventing new features from breaking functionality.

- **GUI Application Development for Medical Imaging**
 - Enhanced and maintained a medical image upload application, implementing user-requested features based on **Python** and **Qt**.
 - Integrated the deployment of app updates with **CI/CD** processes using **GitHub** Workflows and AWS CodePipeline.
 - Partnered with the design team to develop user-friendly interfaces compliant with regulatory standards.
 - Conducted rigorous performance and edge case testing to ensure application reliability under heavy load.
 - Implemented multi-threading for concurrent operations, optimizing upload speed and deepened my understanding of object-oriented programming principles.
- **Proof of Concept Research in Medical Image Processing**
 - Conducted research into the application of Finite Element Method (FEM) for evaluating bone microarchitecture.
 - Utilized tools such as FenicsX, Gmsh, and VTK for FEM simulations and analysis.

Data Scientist | DataDisca Pty Ltd | Melbourne, Australia

12/2020 – 09/2021

Time Series Classification and Forecasting

Industrial Fluid Flow: Feature engineering on fluid flowrate data to classify various fluid types across pipelines.

Retail Sales: Analyzed supermarket transaction data to build visualizations tracking the sales volume, revenue, and profits. Forecasting using ARIMA, LSTM Neural Networks and Vector Auto Regression

Automobile Engineer | Hyundai Motors India Engineering | Hyderabad, India

09/2014 – 09/2018

- Designed Tailgates for Hyundai and Kia cars. Performed finite element analysis and stress testing of components (Tailgate)

EDUCATION

Master of Data Science | Monash University | Melbourne, Victoria

03/2019 – 12/2020

Bachelor of Mechanical Engineering | Jawaharlal Nehru Tech University | Hyderabad, India

10/2010 – 06/2014

REFERENCES

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