# **Shobhit Narayanan**

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#### **CANDIDATE SUMMARY**

In his 5 years working as an AI engineering professional, Shobhit has shown exemplary skill in developing new solutions in various problem spaces including Edge AI for both Computer vision and NLP tasks.

### **EDUCATION**

# Singapore University of Technology and Design (SUTD)

[May 2016 - September 2019]

• Bachelor of Engineering (Information System Technology and Design), Honors

### University of California, Berkeley – Overseas Exchange

[June 2017 - August 2017]

• Given the rare opportunity for the Global Leadership Programme (GLP), awarded to 20 students in the entire cohort of ~400 students.

#### **CERTIFICATIONS & TECH STACK**

- FrontEnd ReactJS, VueJS | Backend Node, FastAPI, Django
- Al stack Pytorch native (Very proficient), Tensorflow
- Languages C++, Python, JS, TS, Kotlin
- Databases MSSQL, Redis, Cosmos, Mongo, Pinecone, LanceDB
- Cloud Computing Azure, Docker, Kubernetes

#### **WORK EXPERIENCES**

### Vulcan AI, Category Lead - Edge AI

[July 2023 - Present]

- Developed security features (AES, RSA) for all Android projects that use AI on edge using C++ API to ensure maximum performance. Reduced processing time by 60% while also adding decryption functionality for important files
- Won strategic initiative and responsible for the design and implementation of LLM solutions for one of the largest Agri-business in SEA.
- Deployed an on-premise RAG solution and scaled it over a kubernetes cluster for >100 users.

#### Vulcan AI, AI Engineer - Project Head

[July 2022 - July 2023

- Spearheaded the development of a patent pending AI system for Activity recognition and tracking to be used in Palm Oil estates. As the project head, I designed and developed the Database (MSSQL, Cosmos NoSQL) along with all supporting web apps (ReactJS, VueJS, Azure CR, Fn, WebApp) for data management and user access to view the relevant data.
- Trained AI models for Activity detection in Timeseries Data using Transformers, as well as a state of the art OCR model. Model training done using PyTorch and achieved 98% accuracy.
- Developed Mechanism to run Al inference of all models on Android (Kotlin) in various forms Chaquopy (Python),
   C++ and Kotlin.

#### V3 Smart Technologies, AI Engineer

[September 2021 - June 2022]

- Successfully designed and implemented AI models (including YOLOv5, DepthNet & EfficientNet) for telematics
  systems that can analyze dashcam data for large fleets of vehicles and detect rash driving patterns. Reached an
  accuracy of > 90% on labelled test data.
- Created a streaming web platform using the MEVN (Mongo, express, Vue, NodeJS) stack and created ML services using flask and gRPC.
- Performed data analysis on dashcams footage and various vehicle sensors to understand metrics for poor driving and relevant models to predict those metrics.
- Successfully implemented and deployed an Activity recognition Model on Android using Tensorflow Lite and multithreading high frequency sensor data collection for a six-figure project.

# **Sustainable Living Lab, Consultant**

# [December 2019 – July 2021 ]

- Designed and implemented strategic initiatives aimed at boosting Intel's market penetration and sales for their OpenVINO toolkit, achieving a 300% increase in product adoption across schools and educational institutes. To this day the programs have impacted more than 30 countries and more than 1 Million users.
- Spearheaded the business development process for Intel by proposing new business processes for the company and won >S\$500,000 of projects.
- Developed more than 10 Artificial Intelligence use-cases, for problems including **NER**, **object detection**, **Image classification and more** (using state-of-the-art methods) for above mentions programs, using various technologies including **Intel OPENVino**, **Intel RealSense camera**, **Keras**, **OpenCV**, **Python**, **Pytorch**.