vkudari@buffalo.edu +1-(469)-943-6778

EDUCATION

• State University of New York at Buffalo

Master of Science in Computer Science

Buffalo, NY Sep. 2021 – Present

• National Institute of Technology, Durgapur Wes

Bachelor of Technology in Computer Science and Engineering

West Bengal, India July 2014 – May 2018

Relevant Courses

Data Structures & Algorithms, Machine Learning, Reinforcement Learning, Computer Vision & Image Processing

SKILLS

• Languages: Python, SQL, Bash, Dart, JavaScript, Java, HTML, CSS

• Libraries: PyTorch, Django, PySpark, Pandas, NumPy, OpenCV, Matplotlib, Scikit, SQLAlchemy, Flask, Flutter, FastAI

• Tools: Docker, Compose, Kubernetes, PostgreSQL, Redis, Sentry, Git

• Cloud: GCP, Heroku, AWS

EXPERIENCE

Full Stack Developer

• Brave Orbit Capetown, South Africa

Jan. 2020 - Aug. 2021

• Re-Built a healthcare app into a cross-platform mobile application using Flutter, improved performace by 40%

- o Designed & developed HIPAA compliant scalable push notification service leveraging Cloud Tasks & Firebase Messaging
- o Medication reminder/interactions service was built using Django; NIH and MPR APIs are used to fetch interactions
- o Developed a clinical surveying platform that sends out email and SMS alerts to patients and collects feedback periodically
- o Built a ERP system, custom features such as multi-product substitutions, combo-products are developed
- Lead a few projects and mentored junior developers; Custom ERP system project assisted a supermarket chain in managing
 5X growth during the COVID-19 pandemic
- o Kubernetes CI/CD workflows were setup on GitLab to test, build and deploy API's on cloud

• Accenture

Advanced Application Engineering Analyst

Bangalore, India

lvanced Application Engineering Analyst

Sep. 2018 - Dec. 2019

Redshift PL/SQL procedures were used to generate drug material hierarchies from huge volumes of drug life cycle data

- Performed trend analysis on drug potency data using PySpark on a EMR cluster to forecast potential raw materials affecting the drug quality. Several statistical measures are performed and colour coded control charts are visualised on spotfire
- Designed and developed automated data validation ETL pipeline leveraging microservice architecture to validate data across a wide range of data sources that resulted in 70 effort reduction and 75% cost saving on infrastructure

• Vishakapatnam Port Trust

Visakhapatnam, India May 2017 - July 2017

• Created dataset and trained SVM with gaussian kernal to identify cargo type; estimated size of lease area using computer vision techniques

RELEVANT PROJECTS

Software Intern

• Smart Broker — Deep/Reinforcement Learning, Computer Vision

- Designed custom OpenAI gym environment for crypto trading, trained on visual technical indicators like RSI, MACD
- Applied LSTM chained with CNN as function approximators to Actor Critic algorithms; 10% returns on intraday market was achieved

• Vehicle Health Inspector — Computer Vision, Deep Learning

link

o Trained segmentation model to detect damage and calculate health score; Deployed model as a REST API on GCP

• DeepJet Autonomous Car — Deep/Reinforcement Learning, App Dev, Backend

link

o Assembled the car with Jetson Nano; Cross-platform mobile app was build using Flutter to control the bot remotely

• Implemented WebSockets to exchange sensor data with the controller; Applying RL/DL algorithms to make it autonomous

Mask Detection REST API — Deep Learning, Backend

link

o Annotate mask dataset and fine tune ResNet model; Expose trained model as API and deployed using docker on Cloud Run

Thesis

• Gender Classification Using CNN under Dr. Dakshina Ranjan Kisku

 Implemented Gil Levi and Tal Hassner's deep neural network architecture in PyTorch, tweaked the network layout, and evaluated various second-order optimisation techniques