Pushpendra Parmar

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I am an Android developer with experience in applied Machine Learning and Embedded designs. Hands on experience had taught me even more than theoretical knowledge.

Experience

CREST DATASYSTEMS | Software Development Intern
Jan 2021 – Jun 2021 | Ahmedabad, India
Technology : Python, Javascript, HTML, CSS, Selenium, PyTest, QRadar, Automated Testing

→ Designed and developed **Splunk** and **QRadar** applications primarily used for data filtering.
→ Implemented integrated and continuous testing and development structures for end to end data collection for QRadar.

NEXACTLY SOLUTIONS | Data Science Intern
Aug 2020 – Dec 2020 | Ahmedabad, India
Technology : Python, Tensorflow, Octave, Jenkins, AWS

→ Developed a machine learning model using RNN to filter and associate data received from EEG on **Nvidia Jetson** .
→ Deployed the model using CI/CD pipeline of **Jenkins** on **AWS** .

Projects

GRAPHITE: JOURNAL, BUCKET LIST | Play Store
Technology : Jetpack Compose, Kotlin, Firebase, Realm Database

→ Developed an **Android App** to keep a day to day journal and bucket list app with rich text support.
→ Entries can be connected with the **geolocation** where it was taken and can be viewed on map.
→ OAuth with **Firebase** and Dropbox for 2 way synchronization.
→ On device as well as **end to end encryption** of entries.
→ **OpenLibrary rest api** for book search and **TMDb rest api** for movies and TV shows.
→ Used **Biometric authentication** to decrypt on device data.

TRIPLEE | Play Store | Source Code
Technology : Android SDK, Kotlin, Firebase, GCP, SQLite

→ **Android App** called Triplee written in kotlin to save your track using **GPS** and activities with two-way synchronization with Google drive.

PATTERN RECOGNITION IN COMPUTER LANGUAGE | Final year project
Technology : Python, PyTorch, SpaCy

→ Extracted patterns in computer languages such as C, Java and Assembly and make model sample the code intangible for humans at first glance, nevertheless unable to compile or execute. Extracted pattern includes knowledge to close a bracket when opened, not to use return statement when function declared void.

IMAGE RECONSTRUCTION FROM INCOMPLETE DATA | Third year project
Technology : Python, Tensorflow, Keras, OpenCV

→ Application of Graph Network, CNN and RNN to reconstruct image from incomplete input. Plausible accuracy was expected and achieved for grayscale images. Further extension similar model on speech synthesis from incomplete parts produces unreal output for human ears.

ENHANCED NEURAL ARITHMETIC LOGIC UNIT | Second year project
Technology : Python, Tensorflow, Scikit Learn, SciPy

→ Modified Neural Arithmetic Logic Unit to learn more functions from multiplication and addition to generalize to calculate powers and exponent.

Skills

LANGUAGE
Python • Java • Kotlin • Xamarin • Javascript • Dart • Cuda • C++ • Embedded C • C#

LIBRARIES/FRAMEWORKS
Android SDK • Jetpack Compose • Tensorflow • PyTorch • .Net • Flutter • React

OTHER
Linux • Ardunio • Raspberry Pi • Embedded Systems

Education

UNIVERSITY OF WINDSOR
M.Eng Electrical and Computer
Sept 2022 - Current

NIRMA UNIVERSITY
B.Tech Computer Engineering
Aug 2017 - Jul 2021

Publications

Stochastic Neural Networks-Based Algorithmic Trading for the Cryptocurrency Market | PAPER 2022
Proposes a hybrid trading strategies that take advantage of the traditional mean reversal strategies alongside robust price predictions from stochastic neural networks. Funded by the Researchers Supporting Project No. (RSP2022R509) King Saud University, Riyadh, Saudi Arabia.

Stochastic Neural Networks for Cryptocurrency Price Prediction | PAPER 2021
Inspired by the Random-Walk model on financial markets, we induced layer-wise randomness into the observed feature activations of neural networks to simulate market volatility. We trained the Multi Layer Perceptron and LSTM models for Bitcoin, Ethereum, and Litecoin. Supported by the Department of Corporate and Information Services, Northern Territory Government (NTG), Australia.