Utkarsh Shukla

+91 7905057363 E-Mail Github LinkedIn Website

Education

Vellore Institute of Technology, July 2015 - Present (Expected: June 2019)
Bachelor of Technology, Computer Science. CGPA : 8.3

Research Experience

SCHOOL OF COMPUTER SCIENCE, UNIVERSITY OF MANCHESTER — JULY, 2018 - SEPTEMBER, 2018

- Data Science Research Intern
  - Developed a neural computations model to study the synaptic process associated with alpha and theta brain waves.
  - Mentor: Dr Basabdatta Sen Bhattacharya, Researcher, University of Manchester, UK.

BRAIN COMPUTER INTERFACE, ALPHA LEARNING — FEBRUARY, 2018 - AUGUST, 2018

- Data Science (Machine Learning) Research Intern
  - Devised a machine leaning model for prediction and classification of Scalp EEG scans into different cognitive brain states. Classification Metric Accuracy achieved 93.2 %.
  - Mentor: Mr. Arvind Babu

SCHOOL OF COMPUTER SCIENCE AND ENGINEERING, VIT UNIVERSITY — MARCH, 2017 - DECEMBER, 2017

- Data Science (Machine Learning) Research Intern
  - Created a pipeline for quantitive and qualitative analysis of intracranial EEG for prediction of onset of an Epileptic Seizure
  - Mentor: Prof. A Nayeemulla Khan

Work Experience

SOCIAL COPS — JULY, 2018 - PRESENT

- Data Scientist
  - Developing models for Demographic based Population and Economical estimation using Digital Elevation Models for extracting Geo-dynamic features, Terrain Mapping and Human settlement assessment

MESH EDUCATIONS — JUNE, 2018 - PRESENT

- Deep Learning Intern
  - Developing a Deep Auto-encoders model for analysis of student feedbacks for extracting actionable content related to courses and professors. Developed a statistical named identity parser for determining complaints and suggestions from feedbacks.

SPINTA DIGITAL — JUNE, 2018 - AUGUST, 2018

- Machine Learning Data Analyst
  - Responsible for analysis, detection and prediction of anomaly in transactional data for fraud detection.

ALPHA LEARNING — MARCH, 2018 - AUGUST, 2018

- Machine Learning Intern
  - Developed predictive models over user's personal data for identifying probable customers for targeted advertisement and customer churn probability.

EURO EXIM BANK — FEBRUARY, 2018 - JUNE, 2018

- Deep Learning Intern
  - Created a Deep Learning Siamese neural net models which implements one shot learning for automated video and image pair KYC verification feature for the bank app

MENTORED RESEARCH — DEC, 2016 - MARCH, 2018

- Full Stack Developer
  - Development of Rest APIs, management of payment gateways and UI/UX for interaction of students with different courses.

Publications

- U. Shukla, A. Mishra,, B. Jaganathan, P. Shukla "*Study and Analysis of Stochastic PageRank Algorithm*"
- U. Shukla, A. Mishra, Dr. T.P Sariki *"An Adroit Approach Towards Text Summarisation"*
- H. Bhatt, U. Shukla, Dr. Nayeemulla Khan *"Epileptic Seizure Prediction Through Machine Learning and Spatio-temporal Features Based Time Series Analysis of Intracranial Electroencephalogram Data"*
- A. Mishra, U. Shukla, B. Jaganathan, P. Shukla "*Study and Analysis of Weighted PageRank Algorithm*" , EAI, 2018

Projects

- EEG Simulator
  - Developed a simulator for imitating brain waves of different cognitive states using reinforcement learning over standard Neural Mass Excitation Model using feature matching from the energy, frequency and time domains.
- Epilepsy predictor
  - Developed an ensemble machine learning model for increasing sensitivity of individual ML models towards seizure onsets, over scalp EEG.
- Code Rank, VIT University
  - Platform for development, compilation and submission of codes for assessment. Serves as a substitute for a previously used paid service.
- Automated Attendance System
  - Developed a deep learning framework for a completely automated, facial recognition based attendance management system incorporating realtime auto enrolment and liveliness detection.

Entrepreneurship

Developing an amalgamation of hardware and software for realtime epileptic seizure prediction.

- Fund of 20,000 £
- Proof of concept by May, 2019.

Skills

- **Development:** Hadoop, Flask, AngularJs, OpenCV, Boost-Graph Library, Deep Neural Networks, Selenium
- **DevOps:** Git, Docker (Basic), AWS, Linux.