SURYA KRISHNAMURTHY

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EDUCATION

Northeastern University, Boston *Sep 2022 - May 2024*
Master of Science, Computer Science

Vellore Institute of Technology, Vellore *June 2016 - May 2020*
Bachelor of Technology, Information Technology Cumulative GPA: 8.6/10

Shrishti Vidyashram *June 2016*
Senior Secondary Percentage: 90.8%

TECHNICAL STRENGTHS

Computer Languages Python, R, Julia, C++
Software & Tools PyTorch, Tensorflow, Spark, SQL/NoSQL, Stan, Linux

RESEARCH

Using Artificial Intelligence-based models to predict the risk of Mucormycosis among COVID-19 Survivors: An Experience from a public hospital in India. December 2021
Journal of Infection

· To the best of our knowledge, this is the first study to develop a machine learning model to predict the risk of mucormycosis among COVID-19 survivors. Model achieves an AUROC of 0.95.

Evaluating Deep Neural Network Architectures with Transfer Learning for Pneumonitis Diagnosis September 2021
Computational and Mathematical Methods in Medicine

· Comparative analysis of various image classification models based on transfer learning with well-known deep learning architectures.

Machine Learning Prediction Models for Chronic Kidney Disease Using National Health Insurance Claim Data in Taiwan May 2021
Healthcare

· Prediction of Chronic Kidney Disease risk from diagnosis and medication history using machine(deep) learning approaches. Our temporal deep learning model achieves an AUROC of 0.95

Deep Learning for Short Answer Scoring March 2019
International Journal of Recent Technology and Engineering

· Using Deep Learning for the task of automated scoring of short descriptive answers. Our BERT model achieves a mean QWK score of 0.71.

EXPERIENCE

Northeastern University, Boston Dec 2022 - Current
Graduate Research Assistant

· Assisting Dr. Shawn Bhimani in the supply chain datahub project with identifying forced labour in supply chain data

iQGateway, Bangalore June 2018 - July 2022
Associate Data Scientist

- Lead a team of 5 data scientists in the development of an AutoML platform and conducting research on efficient and interpretable ML
- Implemented a graphical ML pipelining library inspired by kedro to facilitate model building and autoML
- Remodeled an automatic electrical appliance and improved its performance accuracy by 20% and efficiency by 30%
- Prototyped a route and schedule optimization system for waste management to reduce costs by 15%
- Improved our OCR system for processing forms by 6% with manual feature extraction, character level deep networks, and tesseract
- Designed and developed recommendation engine for an education institute based on Holland codes, and previous learning pathways
- Analyzed data to develop forecasting models for a large Indian retailer with 340+ stores

Taipei Medical University, Taiwan May 2019 - June 2019
Research Intern

- Developed machine learning and deep learning models to predict Chronic Kidney Disease risk from diagnosis and medication history under the TEEP AsiaPlus Program. Constructed neural networks achieve an AUROC of 95.7
- Experimented with clinical text records for family history extraction
- Prototyped classical and deep-learning approaches with 80% accuracy for survival analysis with actigraphy data

Skcript, Chennai June 2018 - June 2018
AI Intern

- Leveraged web-mining to build light-weight emotion detection model with performance comparable to commercial solutions and 50% more efficiency
- Developed a deep-learning based regional fashion type detection model with an accuracy of 85% from scraped google images
- Published a case-study on PlayStation E3 by analyzing and visualizing tweets

ACHIEVEMENTS

Special Student Achievers Award VIT, 2018-2019

Winner of AngelHack Agora challenge Bangalore and Agora RTC Beijing, 2018

Winner of Juspay HyperHack IITM Shaastra, 2018

Winner of CodeSpace hackathon VIT, 2018

Finalists in Global Conference on Advances in Science, Technology and Management (GCASTM) VIT, 2017

RELEVANT COURSES

Related Courses
Soft Computing
Data Mining Techniques
Artificial intelligence
Natural Language Processing
Big Data Analytics
Data Science by Jeffrey Strickland

Other Courses
Statistics for Engineering
Applied Linear Algebra
Transformation Techniques
Calculus for Engineers
Digital Image Processing

CERTIFICATIONS

Udacity Machine Learning Advanced Nanodegree

NPTEL Data Science for Engineers (Top 1%)

Coursera - Deep Learning Specialization

Coursera - Machine Learning

Microsoft Technology Associate for Introduction to Programming Using Python

STUDENT ACTIVITIES

Google Developer Student Club, NEU Oct 2020 - Current
Technical Lead *NEU Boston*

· Working on hosting various events, projects and workshops

Google Developer Groups, VIT Feb 2017 - May 2019
Technical Member *VIT Vellore*

· Worked on several projects based on Machine Learning and Back-end Web Development
· Conducted a workshop on Computer Vision. Devised introductory hands-on tutorials for participants through Google Colaboratory which was also made public
· Taught basic Python for beginners on our weekly workshops
· Won 4 hackathons with other technical members in the chapter

RELEVANT PROJECTS

mlgauge – ML benchmarking library based on pmlb and openml

vityBot – A personal assistant for students in VIT university based on NLP to improve productivity

Neural Style Transfer implementation in keras

unSting – disaster recovery and management platform based on autonomous drones powered by computer vision and RTC

MediKit – Improved data-centric healthcare system powered by IoT and ML

FaceRec Security System powered by IoT and ML

Intrusion Detection System based on Machine Learning

WiFi Rover – Robot to traverse rugged terrains controlled with gamepad

Pneumonia detection through image enhancement and feature extraction