KRUTHIKA MODEPALLI

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EDUCATION

M.S. in **Computer Science & Engineering | The Pennsylvania State University** **Jan 2020 – Dec 2021**

Coursework – Pattern Recognition & Machine Learning, Advanced Compiler Construction, Computer Informatics, Natural Language Processing, Numerical Linear Algebra

B.E. in **Computer Science & Engineering | Visvesvaraya Technological University** **Aug 2015 – June 2019**

Coursework – Design & Analysis of Algorithms, Data Structures, Automata Theory, Machine Learning, Big Data Analytics, Operating Systems, IoT & Applications, Information & Network Security, Computer Graphics, Advanced Computer Architecture

WORK EXPERIENCE

Technology Tutor & Assistant | Pennsylvania State University | University Park, PA **July 2020 - Present**

- Providing individual consultations for Penn State faculty, student and staff with technology use
- Delivering personalized training on software and applications widely used in Penn State like Zoom, Office 365, WordPress, Canvas, Kaltura

Product Engineering Intern | APTTUS | Bangalore, India **July 2018 – Aug 2018**

- Worked on Hadoop Data Ingestion using SQOOP tool and Oozie Workflow, exported data from HDFS to Azure SQL Server handling thousands of new and updated records
- Basic Training of CPQ on Salesforce and obtained Salesforce Admin for APTTUS certification

Web Development Intern | Destination KPOP India | India **Aug 2016 – Jan 2017**

- Developed an enterprise level web application for an e-magazine using HTML, CSS, JavaScript, jQuery

PROJECTS

Breast Cancer Detection

- Performed classification on Breast Cancer dataset by analyzing the histopathological images using supervised Deep Convolution Neural Networks using **Python**
- Evaluated classification results in terms of metrics like sensitivity, precision, specificity, F1 measure

Wallpaper Group Classification

- Built skinny & wide convolution neural networks for classification of 17,000 wallpaper images into 17 groups using **MATLAB**
- Performed augmentation on the dataset and implemented transfer learning

Smart Campus Communication

- Developed a web and mobile application to facilitate communication and collaboration purposes within a campus using **Golang**, **Python, Java, PKI, MariaDB & WebRTC**

Self-Driving Car in NFS Rivals using Neural Network

- Trained a deep convolutional neural network using the raw pixels of the NFS game to build an autonomous car agent driving as fast as possible while staying on road and avoiding obstacles using **Python**

I-SEE-YOU

- Worked on building a web and a mobile application built to enable virtual visits to the Apollo Hospital's ICUs in India
- Worked on setting up the live video streaming model using the HTTP Live Streaming protocol and FFmpeg

Plant Store Application

- Built a full stack web application to accommodate easy purchase of plants and related gardening tools using **HTML, CSS, Javascript, MySQL & PHP**

OTHER TECHNICAL SKILLS

- **Web & Programming Skills**: C++, Java, Python, PHP, MATLAB, GoLang, JavaScript, HTML5, CSS3, JSP
- **Database:** MySQL, Azure SQL, MS SQL, MariaDB
- **Tools & Libraries** Apache Oozie, Sqoop, MapReduce, TensorFlow, OpenCV, Keras, Scikit-Learn, Pandas, NumPy, Tableau, Git, Basic Salesforce Administration, Blockchain

PUBLICATION

- **Kruthika M.R.,** Adithya Kumar N.S., Abhishek S., Abhigna A., "*A Smart Campus Communication System*", International Journal of Computer Sciences and Engineering, Vol.07, Issue.09, pp.34-37, 2019. (DOI: 10.26438/ijcse/v7si9.3437)

EXTRACURRICULAR ACTIVITIES

- Elected as **Secretary** for the **Engineering Graduate Student Council** 2020-2021 at the Penn State University
- Secured 2nd place amongst 32 teams in the intra-college final year project exhibition 2019
- Amongst the top 4 teams out of 250 in the final round of **Smart India Hackathon 2019** conducted in Coimbatore, Tamil Nadu organized by the **Government of India** for the problem statement by Apollo Hospitals