ARCHANA PRABHU

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EDUCATION

University Visvesvaraya College of Engineering, Bangalore University, India
Bachelors of Engineering in Computer Science 2019
Honors Distinction Degree with 86% [Scholaro GPA : 4/4]
Recipient of Bangalore University Gold Medal for 1st Rank in Undergraduate Computer Science
Thesis Project : "Network Intrusion Detection using Sequence Models"

PROFESSIONAL RESEARCH & ENGINEERING EXPERIENCE

Microsoft Research & Development Center
Software Engineer 2 – Microsoft Teams Android Client 2021 – Present

- Research and customization of on QUIC network protocol for Emerging Markets.
- Developed a multi-threading Priority Framework to improved android responsiveness

Microsoft Research & Development Center
Software Engineer - Microsoft Teams Android Client 2019 – 2020

- Study of Bayesian and Null Hypothesis based A/B experimentation framework
- Curated adaptive algorithm for Real Time systems with network socket error correction logic.
- Developed an extensive search experience for the Teams Android app in association with the Microsoft Search, Assistant, and Intelligence (MSAI) team of Microsoft Research

Microsoft Research & Development Center
Software Engineer Intern 2017 – 2018

- Analyzed, studied and integrates the Microsoft Office Lens, an Optical Character Recognition (OCR) software that uses image processing and text conversion algorithms with the Android Camera of Microsoft Teams app.

PUBLICATIONS AND PATENTS

"Network Intrusion Detection using Sequence Models "
IEEE Xplore 2018 - 2019

"Intelligent Systems : Adaptive Socket Timeout Algorithm to improve success rate of network calls in Emerging Markets"
Patent under review by Microsoft Corporate, External, & Legal Affairs (CELA) In Progress

POSTER PRESENTATION

"Emerging Market Challenges and Design Research for Network Layer"
Android Dev Day at Microsoft Research & Development Center 2019

HONORS AND AWARDS

Promoted to Fast-Track Career Path to Leadership Role for excellent contributions in Microsoft R&D Center. 2020

Curated an ML driven User Emoji recommendation system and won 2nd Place in Microsoft Internal Team Hackathon. 2019

P.V. Kumaraswamy Bangalore University State Gold Medal awarded by Indian Space Research Organisation (ISRO) Chairman and Governor for (1st Rank) highest academic standing in Computer Science and Engineering Undergraduate Studies 2019

Research paper nominated at Grace Hopper Conference India organised by Anita Borg for Original Research contribution and publishhed in IEEE Xplore 2019

Academic Exam Scholarship worth 600$ offered by University Visvesvaraya College of Engineering for (1st Rank) highest standing in the Sophomore year of Undergraduate degree 2017

Top 10% of India in Indian Certificate of Secondary Education (ICSE) examinations of high school 2013

PROJECTS

Network Intrusion Detection 2018 – 2019

Founding Member of Computer Society in College

- Implemented models capable of detecting and classifying anomalous behavior in networks. Multiple architectures were explored and tuned for optimal results.
- A paper describing the sequence model approaches has been accepted at the Grace Hopper India Celebration '19.
- Technology Stack - Keras, TensorFlow, Python

Real-Time Anomaly Detection - for video surveillance 2018

- Designed and developed a system which is capable of detecting anomalies in real-time surveillance feeds.
- Used C3D for video feature extraction and multiple instance learning to train the model. Capable of processing multiple cameras feeds simultaneously.
- Technology Stack - Keras, Theano, Python, OpenCV

Image Captioning - a deep learning approach. 2018

- Designed a model that extracts features from an input image and provides an appropriate caption describing the image contents. An end-to-end approach is used combining the domains of computer vision and NLP.
- Developed multiple CNN + RNN model architectures for comparative analysis.
- Technology Stack -Keras, TensorFlow, Python