Maharsh Suryawala

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Education

School of Engineering and Applied Science (SEAS), Ahmedabad University (AU) — Ahmedabad, GJ
B.Tech in **Information and Communication Technology** — August 2016 — June 2020
Cumulative Grade Point Average: 3.10/4.00

Skills

Programming Languages: C, C++, C#, .Net, Python, Apache-Spark, Shell, R, PowerShell, Verilog, SQL, JavaScript, TypeScript, NodeJS, GraphQl, React, Angular, HTML, CSS

IDE & Tools: Visual Studio/Code, Jupyter Notebook, PyCharm, RStudio, MATLAB, LaTeX, LabView, Arduino IDE, Fiddler, WireShark, JFrog-Artifactory, Azure-DevOps

Experience

Thomson Reuters (1 yr 1 mo) — Ahmedabad, India
Associate Software Engineer — June 2020 — Present

- The key responsibilities include resolving various features and bugs using .NET(C#) & Angular/AngularJS in a cross-functional agile environment to deliver innovative high-quality software.

Technology Intern — December 2019 — May 2020

- Automated DevOps artifact-migration (with various package filtering options) and token-rotation from generating a new token to updating the tokens at various service endpoints, variable groups, and builds; using JFrog REST API, Azure DevOps REST API, and PowerShell.

Undergraduate Teaching Assistant, Ahmedabad University (5 mo) — Ahmedabad, India
Course: Data Science — August 2019 — December 2019

- Collaborated with the professor in planning the learning activities. Prepared the course material for certain modules. Conducted and supervised quizzes and vivas. Supported students by resolving queries, grading assignments, and providing continuous helpful feedback.

Fusion Informatics Limited (3 mo) — Ahmedabad, India
Machine Learning Intern — May 2019 — July 2019

- Developed a user-interactive tool that automatically recognizes food from images using deep-learning and outputs the nutrition facts.

EasyHire India (3 mo) — Ahmedabad, India
Machine Learning Intern — May 2018 — July 2018

- The internship consisted of making a natural-language-processing based model that provides the university students with their plausible work fields by analyzing their past contributions, course-work, project work & achievements.

Projects

Food Image Recognition and Nutrition Visualization
Skills Used: Python, Jupyter Notebook, Flask, Keras, TensorFlow, OpenCV, Scikit-Learn, REST
Utilized transfer-learning and re-trained the final layer of Inception-V3 model with additional 101 classes to automatically recognize food from images. Achieved an accuracy of 82% on the same. Also, consumed the USDA (U.S. Department of Agriculture) Food-Data-Central-API to visualize the nutritional facts of the same.

Face Detection And Facial Expression Recognition
Skills Used: Python, Jupyter Notebook, Keras, TensorFlow, OpenCV, Scikit-Learn
A systematic comparison of different machine learning & deep learning algorithms applied to the problem of fully automatic recognition of facial expressions.

Bilateral News (Hackathon Winner) — Ingenious Hackathon-2020
Skills Used: Python, Jupyter Notebook, Django, SciPy, BeautifulSoup, Scikit-Learn, NLTK
Leveraged K-Means-Clustering to divide news-articles into clusters and trained the model on the same using XGBoost Algorithm. Built a google-chrome-extension that finds news-articles matching a query and provides two different views of the news.

Big Data as a Service (BDaaS) in Multiplayer Online Survival Games
Skills Used: Hadoop, REST, Apache Spark, Python, Apache HBase, Overwolf

A distributed system that provides a service to store, retrieve, and analyse the game data of popular multiplayer online survival games such as CS: GO, PUBG, Fortnite, etc.

Predict Diseases From Symptoms
Skills Used: Python, Jupyter Notebook, NetworkX, Scikit-Learn

Created a network-graph to analyse the common symptoms between diseases, most common symptoms, most common diseases, etc. Additionally, implemented a system that predicts diseases from symptoms using a random-forest classifier.

Heart Disease Risk Prediction
Skills Used: R, R Notebook

Performed EDA (Exploratory Data Analysis) on the popular UCI - Heart Disease Dataset (Combined) and built a model to predict heart-diseases in patients using R.

Microprocessor Without Interlocked Pipeline Stages
Skills Used: Verilog, Xilinx ISE

RISC based 8-bits five stage pipelined processor, operating at 579.67 MHz clock frequency with 19 I/O pins and 28 instructions having 5 Addressing formats. Tested on Xilinx Artix-7 FPGA.

XV6 Operating System - Boot-loader
Skills Used: C

Re-implemented the boot-loader module of the XV6 Operating System, which is a modern re-implementation of Sixth Edition UNIX in ANSI C for multi-processor x86 systems.

Positions of Responsibility

Volunteer, Ahmedabad University October 2019 — December 2019
The Seventh International Conference on Big-Data Analytics 2019

Course Associate, Ahmedabad University December 2018 — January 2019
Course: Machines, Mechanisms & Automatons

- Conducted lectures on the basics of Arduino Programming and supported students by arranging doubt solving sessions.

Student MITR as a part of Circle Of Care Initiative January 2018 — December 2018
The Peer Support System at Ahmedabad University

- Mentored the newly admitted undergraduate students during their freshman year by conducting ice-breaking activities, campus tours, and arranging weekly meet-ups with faculty members.

Volunteer, Ahmedabad University June 2018
Faculty Development Programme on"Advanced 5G Wireless Communications: Performance Analysis and Monte-Carlo Simulations"

Lead Graphic Design Coordinator January 2017 — December 2018
Event Organising Team, School of Engineering And Applied Science

Co-Curricular Activities

- ***Winner*** — Ingenious Hackathon, Ingenium - 2020 (Technical Festival, SEAS).
- Conferences Attended:
  1) Open Data Science Conference - Applied AI (Virtual), 2020.
  2) The Seventh International Conference on Big-Data Analytics, Ahmedabad University, 2019.
- Certifications:
  1) Machine Learning for Everyone Career Track - 29 Courses + 3 Assessments (DataCamp)
  2) Python Programming Skill Track - 4 Courses + 1 Assessment (DataCamp)
  3) Algorithms Design And Analysis (Stanford Online)
  4) Algorithms Design And Analysis, Part-2 (Stanford Online)
  5) Statistical Learning; with distinction (Stanford Online)
  6) Machine Learning A-Z: Hands on Python and R in Data Science (Udemy)
  7) Deep Learning A-Z: Hands on Artificial Neural Networks (Udemy)
  8) Blockchain A-Z: Learn How To Build Your First Block-chain (Udemy)

Extra-Curricular Activities

- ***Runners Up*** — Indian Group Singing : Youth Festival, Ahmedabad University (2016-2017).
- Lead guitarist and the founding member of Infinity Band at the School of Engineering and Applied Science, Ahmedabad University.
- Performed an opening act for The Local Train Band on March 20, 2018 and Kenny Sebastian on March 20, 2019.