SAMARTH HALYAL

Graduate Student at California State University, Fullerton

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EXECUTIVE SUMMARY

Experienced Software Engineer with a demonstrated history of working 3+ Years in the computer software industry specifically in the Aerospace and Defense sector. Strong engineering skills to design and develop robust and reliable software products.

JOURNAL PUBLICATION

Samarth V. Halyal," Running Google Colaboratory as a server – transferring dynamic data in and out of colabs ", International Journal of Education and Management Engineering(IJEME), Vol.9, No.6, pp.35-39, 2019.DOI: 10.5815/ijeme.2019.06.04

ACCOMPLISHMENTS

AIM Student Ambassador
Hosted events pertaining AIM and attended MLDS 2019 summit

Google I/O Student Ambassador

Selected among top 2 best android projects in Google I/O

WORK EXPERIENCE

Software Design Consultant
Mistral Solutions | *Sept'21 - Dec'21*
- Individual critical project handling for the defense sector
- Brainstorms and suggestions on software designs

Software Design Engineer
Mistral Solutions | Aug'19 - Sept'21
- Design, Develop and Deliver critical projects for the defense sector
- Worked on similar Aerospace and Defense projects.
- Awarded for exemplary devotion towards the delivery of a time-critical project.

Software Design Intern
Mistral Solutions | Jan'19 - Mar'19
- Worked on different file systems along with parsing any storage device's file system.
- Training on VxWorks

Software Testing Engineer
iO Genesys Inc. | Oct'17 - Nov'18
- Worked on a web-based engine that enables synergy between two independent server applications.

EDUCATION HIGHLIGHTS

California State University, Fullerton
M. S. | 2022 – 2024 (Anticipated)
- Grade: 4.0 (current)
- Computer Science 11.0701

KLE Dr. M. S. S. College of Engineering and Tech
B. E. | 2015 - 2019
- Grade: 8.25 / 10
- Computer Science and Engineering Degree

LANGUAGES SPOKEN

European : English
Indian : Hindi, Kannada, Marathi

PROJECTS

Personal Project : (Robotic Process Automation)

This is a personal project that was initiated by myself during the covid-19 period. This project is still in progress and shall be released as an open-source solution for many RPA related activities. It mainly concerns creating tasks by users which usually do not require human interactions and will take a long time to complete, Users are provided with a UI (user interface), where they shall build their process.

Personal Project : (Self Driving car Algorithm)

This is a personal project that was initiated by myself soon after my sophomore year of engineering. This is based on the idea given forth by Mr. Harrison Kinsley (aka Sentdex a leading developer of machine learning). I have improved the algorithm that relies on *Convolutional Neural Networks* and I have added more hidden layers that help in smoothening the learning curve for the model.

Final Year Project : (LSTM RNN)

During my final year of engineering, I came up with an idea based on the above project that I had taken up and completed based on an existing theory. The idea was to improve the learning capacity of a *Recurrent Neural Network* that was using *Long Short Term Memory* units as their activation function. I completed my final year project by employing this idea and made the network lot more capable to generate a short story based on the stories on which it was trained on. The Model was trained using J. K. Rowling's Harry Potter series.

Corporation Project : (ECU)

Though much cannot be revealed on the project, The electronic control unit was integrated finally on one of the top fighter jets in the airforce. The ECU is mainly concerned about the cooling of the flight. Many different sensors were connected to an HSADC (high-speed analog to digital convertor) whose scan frequency was in milliseconds. I was the sole developer on this project who wrote code for two embedded boards based on a microcontroller and a UI to control them, all developed in C++.

Corporation Project : (Correlative Interferometry)

Though much cannot be revealed on the project, The embedded processor was responsible to read frequency scan signals through an FPGA from an RF receiver. I developed a processor code on VxWorks that uses the correlative interferometry technique (phase difference) to do the bearing estimation. Further to this I worked on the manifold collection for calibration of the same and generate something called as Antenna Calibration Table required by the FPGA for in field frequency scan.

< Few other projects can be found in my github whose link has been provided >

SKILLS

Agile and Scrum

Design Patterns

Machine Learning

C / C++

Go

Python

Javascript

OS (VxWorks/Linux, programming)

Advanced Algorithms