Supreeth S Karan

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EDUCATION

IIIT HYDERABAD
B.Tech. and M.S. by Research
Expected Graduation : 2022
B.Tech CGPA : 6.94
MS CGPA : **10.00**

NARAYANA JR. COLLEGE
Senior Secondary
Grade : 90%

CMR MODEL HIGH SCHOOL
Secondary
Grade : 93%

COURSEWORK

UNDERGRADUATE
Computer Programming
Data Structures
Computer Systems & Organization Digital Image
Processing
Communication Networks
Operating Systems and Algorithms
Statistical Methods in AI

ACHIEVEMENTS

- **Academia Excellency**
class X,XI & XII
- **Limca Book of Records** Holder
- **CCRT Scholarship** (Bharatanatyam)
(Ministry of Culture Government of India)

POSITIONS

- **Program Volunteer** Mozilla Internet
Health Hackathon'19
- **Teaching Assistant** for Arts *(2x)*
- **Advisory Member** of Cultural Committee IIIT HYD
- **Member** of Dance Club IIIT HYD
- **Cultural Secretary** at school 2012-14

SKILLS

PROGRAMMING
Java • Python • Javascript
Matlab • C • C++ • CSS
MySQL • Shell • AWS
Docker • Kubernetes
Ruby on Rails

FRAMEWORKS
Fineract • Apache • Spring MVC
SpringBoot • Microservices
Hibernate • JDBC
Angular • AngularMaterial

OPERATING SYSTEMS
MacOS • Linux • Windows

EXPERIENCE

BYJUS | Software Developer Engineer
Universal Knowledge Graph
July 2022 - Present
- Worked on building a catalog of knowledge elements (a graph model) using content management system (CMS) that serves as a content discovery/insights platform which enhances the search experience with personalised suggestions.
- Implemented a mini prototype of the application utilising SpringBoot & Neo4j; containerization with Docker, Kubernetes orchestration, using AWS EC2 instances and AWS EKS cluster services for deployment.

GOOGLE SUMMER OF CODE | The Mifos Initiative
Machine Learning Scorecard for Credit risk Asssessment
May 2019 - Aug 2019 | Remote
- Developing UI Interfaces for Credit Risk Assessment Scorecard,building API layer and Database for setting up Features, their relation and criteria for risk assessment of a potential/existing loan.
- Implementation of Statistical and Machine Learning methods for credit scoring, predicting potential NPA's, fraud detection and other activities.

GOOGLE CODE-IN | The Mifos Initiative
Mentoring students towards contribution in open source
Dec 2019 – Jan 2020 | Remote
- Worked along with the organisation mentors in setting up the tasks which mostly involved minor bug fixes,challenges.
- Introducing/Teaching Students Coding, Documentation and Training, Outreach or Research,Quality Assurance and Design.

APACHE SOFTWARE FOUNDATION | Back-End Developer
Oct 2018 - Jan 2020 | Remote
- Developed a new backend codebase in Python/Django working inline with the currently developed web-app UI for Credit Risk Project.
- Documentation of Remote Debugging docs, Instructions guide for setting up Fineract locally on Ubuntu Server.

PROJECTS

ALGORITHM FOR DETECTING LINES BASED ON PRIMITIVE CONNECTION
- Worked on the Image processing project based on line detection in gray scale images.
- Implemented Image processing technique which has many applications in object detection such as road detection in remote images and vessel detection in medical images.
- Worked with Canny operator; used to detect edges in a digital image and all the edges are tracked to form series of edge point chains by a 4-neighbor-priority eight-direction tracking method.

IMPLEMENTATION OF FILE SHARING PROTOCOL
- Implemented a 2 client system (acting as servers) listening to the communication channel for requests and waiting to share files (avoiding collisions).
- Using an application layer protocol(like FTP/HTTP), incorporation of MD5 checksum to handle file transfer errors.

RESEARCH EXPERIENCE

COGNITIVE SCIENCE LAB
Aug 2019 – Present | Hyderabad, IN
- Pursuing master degree under **Prof. Dr.Kavita Vemuri** on Study of Spine Kinematics using ML model, Motion Capture (OptiTrack 3D tracking system and EEG Microstates study of hand movements.
- Developed a Real-time Pose estimation system where the movements of Spine are recorded using a single webcam which outputs an analysed reports on function of individual's physical activity , age/gender and body mass index.
- Brain EEG signal classification and its analysis employing signal processing techniques & parsing the momentary global functional microstates of the brain.