

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 - November 2022

- 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 ASSESSMENT

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.