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SUMMARY

Inquisitive, Experienced Software Engineer with 2+ years of diverse experience in the field of software development. I love to brainstorm on new ideas, problems and find Simple and Scalable solutions for them. Seeking to leverage my coding and analytical skills in the domain of Full stack development, Distributed systems and AI/ML.

EDUCATION

University of Maryland, College Park
Masters in Software Engineering

College Park, Maryland
August 2021 – Present

SRM Institute of Science and Technology
Bachelors of Technology in Electronics and Communication Engineering

Chennai, India
June 2016 – July 2020

SKILLS

- **Proficient in:** Python, JavaScript, C, Data Structures, System Design || **Familiar With:** C++, Java, TypeScript.
- **ML Libraries:** Scikit-learn, Pandas, Numpy, keras, Pytorch.
- **Front End:** React JS, Vue JS, Html5, CSS, Bootstrap, JS, J Query, Material UI.
- **Back End:** NodeJS, Flask, Spring Boot, Graph QL, Express JS.
- **Cloud Technologies:** Azure, AWS (EC2, lambda, API Gateway)
- **Containerization:** Docker, Kubernetes || **Repository Control:** Git, GitHub, Bash, Gitlab, JIRA, Azure.
- **Databases:** MySQL, PostgreSQL, Oracle DB, MongoDB, Firebase., AWS Dynamo DB.
- **Soft Skills:** Initiative, Leadership, Resourcefulness, Communication, Public Speaking.

WORK AND LEADERSHIP EXPERIENCE

Maryland Transportation Institute
Software Engineer (Web Developer)

College Park, Maryland
April 2022 – Present

- Maintained and refactored a web-based incentivized administration and transportation data analysis system as a full-stack engineer using React.js, Node.js, and Python.
- Designed and implemented a traffic simulation website using Material UI, Apex Charts, and Mapbox GL.
- Built an Authentication and Authorization Module for Users of the organization.

Fraunhofer USA CMA (Center for Experimental Software Engineering)
Junior Research Scientist

College Park, Maryland
October 2021 – April 2022

- Work on data visualization and machine learning models for predictive modelling/ analysis systems.
- Developed algorithm to identify dynamic patterns detects in data used for predictive analysis, information loss approximation, feature detection.
- Built a UI Dashboard using Vue JS, for the users to see data of various sensors using Chart JS and send alerts when an abnormal activity is detected.
- Maintained and Refactored Fraunhofer USA CMA Web application using Adobe Experience Manager.

Accenture Solutions PVT LTD
Application Developer (Full-Stack Development)

Bengaluru, India
June 2020 – July 2021

- Technologies worked on: Oracle - ADF, SOA, BPM / Java & JVM Languages / REST SOAP Web Services.
- Built & maintained various flows in a Banking System (Core Banking Transformation).
- Worked with Business Problem Analysis, Design Analysis, Agile Planning.
- Coded the frontend using Oracle Tools (ADF) and backend internal flow using Bootstrap, JQuery.
- Architected and Implemented Restful APIs using Node.JS, Connecting to Oracle Databases.
- Fixed numerous bugs across the stack in Java Script, Business process Management. And created Spanner tables in order to optimize query times.

Electronics Corporation of India Limited (ECIL)

Software Engineer Intern

Hyderabad, India

May 2018 – July 2018

- Produced Prototypes of Digital Scientific Calculators to Real-Time Users, and developed improvements based on User feedback.

RESEARCH JOURNAL & PUBLICATION

Detection of Glaucoma Using Fundus Images of Retina

Jan 2020 - July 2020

- Worked as a lead in Developing and Publishing the Research Paper. ISSN: 2347-7180.
- Presented a computational tool for automatic glaucoma detection. Developed and reported improvements for disc segmentation, and a **Deep Learning – Neural Network Box** method to classify the disease.

TECHNICAL PROJECTS

Personal Portfolio | React JS, JavaScript, HTML, CSS, Boot Strap

- Created my Personal Portfolio website and hosted on Github Pages.
- Completely coded from scratch and completely responsive. | **Website:** <https://mohitrachuri.com/>

Home Automation System Using IOT

- The user can operate all the modules that are included in automation process remotely & securely.
- Modules such as automatic plant watering system, Motion based operation of appliances, secure operation of garage are practically implemented.
- All the modules are centrally connected to a Microprocessor, where as in individual operations are performed by micro-controllers.

Knowledge Grab - Online Learning Management System | Angular JS, Node JS, My SQL, Amazon EC2

- Knowledge Grab is an Online Learning Management System that tend to allow users enroll for courses that they are interested in like Programming Languages etc.
- Any User can act as a Content creator as well as a student. A Full-Stack application has been built from scratch and deployed on AWS.

Quantitative Momentum Screener, Quantitative Value Screener

- Designed an ML model that predicts changing stock price of a company based on its historical prices over a period of five years, given the respective news articles post-closing time of the previous day and other globalization factors.
- Employed Machine learning and Deep learning algorithms such as SVM, MLP to understand and predict the stock prices. Achieved ~ 80% accuracy.

Wireless Remote-Controlled Bots (Line follower bot, Table top bot, Smart phone-controlled bot)

- These bots are fully capable of operating themselves by giving a certain path and can also be operated from smart devices.

Smart Mirror interfacing using Alexa (Continuation of Home Automation Project)

- The mirror can display the content that is asked by the user and act accordingly and used to perform tasks.
- A screen is placed behind a 2-way mirror, and all the contents displayed are processed using a raspberry pi.

EXTRA-CURRICULAR ACTIVITIES

Technical Coordinator, Aarush, SRM Institute of Science and Technology

June. 2018 – Mar 2020

- Collaborated with other clubs, faculty, staff, and area employers to coordinate events
- Organized logistics for trips including: timeline, transportation, and budget
- Managed a \$4,500 annual budget, keeping track of expenses via an Excel document.
- Attracted 12% more attendees during the first year and 20% the second year

Spot Award (Accenture) in recognition of meeting the client deadlines and being dedicated towards work.

May 2021