

# Mohit Rachuri

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## SUMMARY

Inquisitive, Experienced Software Engineer with 3+ 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 – December 2022*

**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, AWS DynamoDB.
- **Soft Skills:** Initiative, Leadership, Resourcefulness, Communication, Public Speaking.

## WORK AND LEADERSHIP EXPERIENCE

**AHX-PI / Smart and Small Thermal Systems (S2TS)**

**College Park, Maryland**

*Software Engineer (Web Developer)*

*October 2022 - Present*

- Built and deployed a full scale web application from scratch.
- Integrated an existing server side application with a front end dashboard using React js, and rendered the server side application on front end.
- Setted up the dns and deployed the application to the cloud.
- Created a way to make cloud deployments automatic for the deployed application.

**Maryland Transportation Institute**

**College Park, Maryland**

*Software Engineer (Web Developer)*

*April 2022 – October 2022*

- 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)**

**College Park, Maryland**

*Junior Research Scientist*

*October 2021 – April 2022*

- Work on data visualization and machine learning models for predictive modeling/ analysis systems.
- Developed algorithm to identify dynamic patterns detected 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**

**Bengaluru, India**

*Application Developer (Full-Stack Development)*

*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 Spinner tables in order to optimize query times.

**Electronics Corporation of India Limited (ECIL)**

**Hyderabad, India**

**Software Engineer Intern**

*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, BootStrap*

- 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 the 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, whereas individual operations are performed by micro-controllers.

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

- Knowledge Grab is an Online Learning Management System that tends to allow users to 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 the 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 global 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, Smartphone-controlled bot)**

- These bots are fully capable of operating themselves, 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*