

# Uditraj Singh Rathore

GitHub Link: <https://github.com/uditraj1> | Portfolio Website: [Uditraj Singh Rathore Portfolio \(uditraj1.github.io\)](https://uditraj1.github.io)

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## EDUCATION

### University of Maryland

M.Eng of Software Engineering

- Current GPA : 3.716/4

College Park, MD

Expected May 2024

### SRM Institute of Science and Technology

B.Tech, Computer Science and Engineering

- Percentage : 84.66

Chennai, India

May 2020

## TECHNICAL SKILLS

**Programming:** C, C++, Java (High Proficiency), JavaScript, Microsoft SQL, HTML, CSS, jQuery, Python, React.js, Bootstrap, Arduino, Machine Learning, Linux, Scikit-Learn, Test Driven Development, JUnit Testing, Mockito, Splunk Logging, Docker Containers

**Tools/Frameworks:** Postman, Eclipse, Rally, Visual Studio Code, SharePoint, Github, Autosys, Filezilla, SonarQube, Jenkins, Excel, Source Tree, Angular, Google BigQuery, Google Cloud Platform (GCP), Adobe Experience Manager (AEM), Ghidra, Pwn Tools, Google Colab, Jupyter Notebook, Amazon Web Services (AWS)

## TECHNICAL EXPERIENCE

### Fraunhofer USA Center Mid-Atlantic (CMA)

Web Development and Machine Learning Intern

Riverdale, MD, USA

January 2023 - Current

- Using Adobe Experience Manager (AEM) to build and update the current company website and making design changes for it wherever required
- Pitching, improving and making design changes to the website to make it more user-friendly and interpretable
- Update and edit the current website content and pages
- Test the current company website for defects and fixing them to avoid customers facing the issues themselves
- Create prototypes and do experiments to create new features and to use new technologies to improve the overall website experience of end users
- Exploring, analyzing and changing various open source Machine Learning Tools to be used by the company for its specific use cases and scenarios.
- Making configuration changes in .yaml files and working and creating Docker containers to work with face recognition tools.
- Creating and using Docker Containers and AWS instances and services for machine learning model training and for providing other required resources

### Ford Motor Company

Software Engineer

Chennai, India

May 2022 – August 2022

- Programmed for a team providing websites/applications used by car dealerships across different countries to improve business growth
- Improved the design and development of software to add new functionalities as desired by the business team and the end users using Java and Python for backend and JavaScript, HTML, CSS and Angular for front-end development
- Tested and debugged software to keep it optimized using Eclipse debugger and Liberty server and checking in local environments after deployment to ensure new changes to the website are flawless
- Attained knowledge of entire computer program/application flow from front-end to back-end to a database
- Used CI/CD tools such as Jenkins for building data transformation pipelines and code validation pipelines using Groovy scripts to process large amounts of data
- Provided ways to improve server and database performances to provide faster speed and reduced waiting time to give a more interactive software to end users

Junior Software Engineer

July 2020 – May 2022

- Wrote clean code for the front and back end of the software by using Postman and local server generation to test the new changes and reducing any future improvements to the code
- Worked on development, analysis, test cases and testing tasks providing knowledge across various stages of the software cycle
- Facilitated support to business when facing technical issues in the production environment to ensure that the business team's work does not get interrupted which may cause major problems
- Developed APIs and RESTful services to ensure smooth transitions in the program flow giving a great experience to the end users
- Programmed for the application using Java in backend, JavaScript/TypeScript in frontend with Angular framework and

using Microsoft SQL for database

## **Viscus Infotech Limited (Vinfotech)**

Web Development Intern

Indore, India

June 2017 – June 2017

- Performed or directed website updates to improve the webpage from a customer's perspective and also to get a better performance
- Created responsive websites that are compatible with any type of device so that customers can easily use any electronic device to view the website
- Removed bugs and tested changes in Inspect Mode to find errors and issues in the code and removing them to improve efficiency of the website
- Wrote, designed, or edited webpage content, or direct others producing content to get the desired webpage look that fits the company's needs

## **WORK EXPERIENCE**

### **Sciencetech Technologies Pvt. Ltd.**

Marketing Intern

Indore, India

May 2018 – June 2018

- Formulated, directed and coordinated marketing activities and policies to promote products and services, working with advertising and promotion managers.
- Compiled lists describing product or service offerings.
- Negotiated contracts with vendors or distributors to manage product distribution, establishing distribution networks or developing distribution strategies

### **University of Maryland Police Department**

Security Operations Monitor

College Park, MD, USA

October 2022 – Current

- Camera surveillance and communicating with the police officers to help in incidents in campus and around the city
- Understanding radio communications and creating reports of the incidents
- Reporting any suspicious activities to police officers to ensure health and safety of everyone

## **TECHNICAL TOPICS STUDIED**

Software Engineering Principles	Algorithm Design and Analysis	Database Management Systems
Data Structures	Microprocessors and Microcontrollers	Employability Skills
Computer Networks	Programming in Java	Computer System Architecture
Object Oriented Programming Using C++	Object Oriented Analysis and Design	Multimedia Tools and Applications
Professional Ethics and Software Economics	Network Security	Programming in PHP
Operating Systems	Compiler Design	Artificial Intelligence
Distributed Computing	Data Mining and Analytics	Linux Internals
Data Science and Big Data Analytics	Web Programming	Theory of Computation
Hacking of C programs and Unix Binaries	AI-Based Software Systems	Software Engineering

## **COURSES AND CERTIFICATIONS**

Jquery Course : From Beginner To Advanced (Udemy)	Emerging Trends on IT (Conducted by WebTek Labs Pvt. Ltd.)
Cloud Computing (NPTEL)	Core Python (PluralSight)
Microsoft SQL Course (Udemy)	Java Tutorial Course (Sololearn)
C and C++ Course (Universal Informatics)	Building Machine Learning Models (PluralSight)
PHP Course (Coursera)	Isensobots Workshop 2nd Position (Conducted by IIT Bombay)
Ethical Hacking Workshop (Hacktrack)	Javascript – Asynchronous Programming and Promises (PluralSight)
React Getting Started (PluralSight)	Exploring and Preparing your Data with BigQuery (PluralSight)
5G and Edge Computing (PluralSight)	BigQuery Datasets and Visualizing Insights (PluralSight)

## **PROJECTS**

Railway Obstruction Detection System Using IOT and Arduino – Created a project that would provide automatic obstruction detection in trains to prevent fatal accidents on the railway track. It made use of UV sensors (Distance calculation and detection), MEMs sensors (Checking for vibrations or faults in railway track) and an eye-blink sensor (Wake a driver if he/she fell asleep while driving the train)

ATM System Using Java – Using core Java scripts to create an ATM System that can show your balance, deposit money to your

account, withdraw money from your account and update the new balance

Hotel Management System Using C++ - A project based on C++ code that provides hotel guests check-in, check-out, guest details, amount to be paid and some more features

Views Per Day Prediction Machine Learning Using Python and Scikit Learn – A project involving data importing, data cleaning, feature engineering, model creation and training, analyzing results of different models, visualizing the results and finally picking the best model for views per day prediction of movies.

## **ACHIEVEMENTS AND AWARDS IN SPORTS**

- Inter Public School Air Pistol (10 meter) Shooting Championship 2012 – Gold Medal (Boys Under 19)
- Mumbai Gymkhana State Open Squash Championship 2007 (Boys Under 11)
- Jaypee Open Squash Rackets Tournament 2009 (Boys Under 13)
- MP Open Squash Championship (State Level Competition) 2012 – Top 8 players (Boys Under 15)
- Shooting State Level Competition Air Pistol 10 meter 2015 – Gold Medal (Junior Category)
- Junior Nationals Squash 2007 (Boys Under 11)
- Represented College Squash Team in 2017 (Men's Team)
- Inter Public School Squash Championship 2012 – Winner (Boys Under 15)
- Inter Public School Squash Championship 2014 – Winner (Boys Under 19)
- School Games Federation of India Rifle Shooting Championship 2012
- National Games Kerala 2015 Squash (Men's State Team)
- School Games Federation of India Squash 2012 – Winner (Boys Under 17)
- Junior Nationals Squash 2014 (Boys Under 17)
- Indian Junior Open Squash Championship 2014 (Boys Under 17)
- Indian Junior Open Squash Championship 2012 (Boys Under 15)
- Indian Junior Open Squash Championship 2005 (Boys Under 11)
- Indian Junior Open Squash Championship 2011 (Boys Under 15)
- Umed Club Junior National Squash Championship Jodhpur 2011 (Boys Under 15)
- School Certificate of Merit in Squash 2009
- School Certificate of Merit in Squash 2011
- Captain of the school squash team 2015
- Madhya Pradesh State Shooting Competition 2011
- School College Color/Crest for Excellence in Air Pistol Shooting (10 meter) 2012
- School College Color/Crest for Excellence in Squash 2012
- NSCI Open Junior Squash Championship 2015 (Boys Under 19)
- Junior National Squash Championship 2015 (Boys Under 19)
- Kasliwal Trophy Inter-School Soccer Tournament 2014 – Runners Up
- Annual Inter House Athletic Meet 110 meter hurdles 2014 – First Position
- Annual Inter House Athletic Meet 400 meter hurdles 2015 – Third Position
- Central India Squash Championship 2010 – Runners Up (Boys Under 13)
- Daly College Merit Certificate 2015 – Best in Air Pistol Boys

## **OTHER EXTRACURRICULAR ACTIVITIES**

- SRM Model United Nations 2017 – Represented Cameroon in council United Nations High Commissioner for Refugees
- Abhigyan National Level Technical Symposium 2016 – Third Place in Counter Strike Video Game
- BITS Model United Nations Hyderabad 2017 – Represented Kuwait in council Arab League
- SRM Model United Nations 2018 – Was in the Delegate Affairs Organizing Team
- Hosted Students of Ivanhoe Grammar School, Australia showing Cultural Heritage of India
- The Daly-Emerald Model United Nations 2015 – Under Secretary General, Food and Beverages Organizing Team
- The Daly College Model United Nations Conference 2014 – Logistics Volunteer
- Gold Key in Scholastic Arts Competition 2013
- Participated in public speaking competitions such as extemporaneous speaking
- Also play field hockey, basketball, badminton and cricket
- Former AFS Exchange Student to USA in 2013 with 100% scholarship from British Petroleum

