Uditraj Singh Rathore

GitHub Link: https://github.com/uditraj1 | Portfolio Website: Uditraj Singh Rathore Portfolio (uditraj1.github.io)

College Park, MD 20740 | (240)936-3470 | uditrajsinghrathore50@gmail.com

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EDUCATION

University of Maryland — College Park, MD
M.Eng of Software Engineering — Expected May 2024
- Current GPA : 3.9/4

SRM Institute of Science and Technology — Chennai, India
B.Tech, Computer Science and Engineering — May 2020
- Percentage : 84.66

TECHNICAL SKILLS

Programming: C, C++, Java (Expert Proficiency), JavaScript, Microsoft SQL, PHP, HTML, CSS, jQuery, Python, React.js, Bootstrap, Arduino, Machine Learning, Linux, Sci-kit 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

Ford Motor Company — Chennai, India
Software Engineer — 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

Fraunhofer USA Center Mid-Atlantic (CMA) — Riverdale, MD, USA
Web Development and Machine Learning Intern — 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
- 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 .yml 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

Viscus Infotech Limited (Vinfotech) Indore, India
Web Development Intern 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

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)

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

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 code 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