MEENU GIGI

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EDUCATION

Rochester Institute of Technology, Rochester - *Master of Science, Computer Science*   Expected Graduation: Aug 2024
University of Mumbai, India - *Bachelor of Engineering, Computer Science*   *CGPA: 3.8/4.0*   Jul 2015 - Jun 2019
Relevant Coursework: Object Oriented Programming Concepts-Java, Computational Problem-Solving using Python, Introduction to Big Data, Database Management Systems, Data structures and Algorithms, Database Design Implementation, Web Technologies

TECHNICAL SKILLS

- **Programming language:** C#, Java, JavaFX, Python, React, C/C++, JavaScript, ReactJS
- **Web Technologies & Frameworks:** Entity Framework Core, .NET, HTML5, Flask, Django, Spring Boot, Spring MVC Frameworks, Hibernate
- **Database:** Relational Databases/RDBMS, Microsoft SQL, MySQL, PostgreSQL
- **Tools/IDE:** IntelliJ, Eclipse, PyCharm, VS Code, Vista Terminal, ARINC Trace Window, IBM Rational Doors, PREP, GitHub, Jupyter Notebooks, Git, Jira, Bugzilla, Postman, Gradle, Maven, Tableau
- **API, Services, and Libraries**: REST API, Pandas, NumPy, Matplotlib, Seaborn, Natural Language Processing Toolkit, Torch, Scikit-Learn
- **Software Testing/Quality Assurance**: NUnit testing, Production testing, Regression testing, User Acceptance testing, JUnit testing
- **Others**: Advanced object-oriented programming concepts, Multi-Threading, Data Structures, Data Processing, Algorithms, Agile Development Cycle, Design Principles, Networking (TCP/IP, UDP), Web Protocols, Data Modeling, Data Cleaning, Data Visualization

PROFESSIONAL WORK EXPERIENCE

Collins Aerospace, Iowa, United States   May 2023 – Current
Software Engineer Co-op – Avionics Panels Software

- Working on Tuning Control Panel 2100 (TCP-2100) Software. Analyzing user requirements to derive software design and performance requirements ensuring alignment with project objectives.
- Conducting rigorous lab software testing on TCP hardware units and participating in formal Run for Score process. Diligently investigating and addressing test failures, contribution to root cause analysis and guaranteeing the reliability of the software.
- Working with Vista Terminal, Vista Signal Analyzer, and ARINC Trace Window for comprehensive analysis of data flow and transmission of ARINC words over buses during software test executions. Debugging existing software to identify and rectify defects, ensuring optimal performance and reliability.
- Analyzing and investigating Open Problem Reports (OPRs), updating code proxy, and executing laboratory tests to verify software resolutions, adhering to established protocols. Collaborating effectively within a 6-member cross-functional agile team to ensure software compliance with DO-178 guidelines for successful certification of software.
- Updating Functional Requirements Documents (FRD) and System Requirements Documents (SRD) on IBM Rational Doors while ensuring the maintenance of active links between various modules within the Doors system.
- Modifying and updating critical documents including Software Assurance Standards (SAS), Software Verification and Planning Reports (SVPR), Project Software Accomplishment Summary (PSAC), and Software Development Plans (SDP) for Stages of Involvement (SOI) submissions essential for airborne software certification.
- Working on Technical Standard Order (TSO) packages, implementing required findings for TSO approvals and contributing to the software's adherence to industry standards. Actively participating in and conducting PREP Reviews, diligently implementing findings.
- Conducting and engaging in Technical Conformity Review (TCR) meetings to ensure station conformity and regulatory compliance.
  Technology used: C/C++, Jira, Rational Doors, TortoiseSVN, PREP, Vista Terminal, ARINC Trace

Software Engineer Co-op – Avionics Platform Subsystems

- Developed mediasets for the PE 3 Pogoe Project, adjusting data packet sizes and transmission/reception frequency rates for diverse beat bursts. Utilized RCDMC (Rockwell Collins Datalink Mediaset Creator) tool to generate mediasets, streamlining the process.
- Documented the mediaset creation process comprehensively, contributing to the integration plan document and facilitating a PREP review.
- Currently engineering a Python script to automate the manual process of updating frequency rates and packet sizes across multiple documents, enhancing mediaset creation efficiency and speed.
  Technology used: Python, TortoiseSVN, PREP, RCDMC, Harmony

Ecolab, North Carolina, United States   Jan 2023 – May 2023
Software Engineer Co-op

- Seamlessly integrated the 'Base Issue' feature into the established Ecolab Mobile Solutions (EMS) platform by leveraging Entity Framework Core, enhancing the platform's functionality and usability.
- Added a dynamic Report Component to the existing PDF reports, utilizing the .NET reporting tool Active Reports. Leveraged Language-Integrated Query (LINQ) tools to proficiently filter, sort, aggregate, and query data within C# code, optimizing data processing workflows.
- Designed a database schema that integrated with the existing structure. Collaborated with Microsoft SQL Server to create and modify tables and views, ensuring data integrity and consistency. Generated EDMX files as needed to update the model from database tables.
- Developed and executed unit tests using the NUnit testing framework. Conducted thorough integration and regression testing across QA, Stage, and Production environments to ensure the reliability and quality of delivered builds.
- Contributed to the front-end development by creating and integrating a new user-friendly webpage into the Ecolab Mobile Solutions (EMS) web portal, enhancing the user experience and interface.
- Crafted a responsive and user-friendly webpage using Razor view, JavaScript, jQuery, and Ajax, ensuring optimal performance and accessibility across different devices and platforms.
  Technology used: C#, .NET frameworks, JavaScript, jQuery, Microsoft SQL Server, Azure DevOps, Agile

Infinite Computing Systems Pvt. Ltd., Mumbai, India · Jul 2019 - Aug 2021
Software Engineer

- Analyzed requirements and use cases to develop and test software with 88% code coverage for a label designer company.
- Collaborated with 12 members to create Microservices and fix bugs for goods and vessel tracking software using Java, which lead to a 40% increase in company revenue. Created SQL scripts to fix production bugs.
- Teamed with a 5-member cross-functional team in an Agile Development cycle to analyze requirements, develop, test, and deploy products and coordinated with 2 business partners towards the successful launch of a vector art and embroidery digitizing platform resulting in a 30% increase in the company annual revenue.
  Technology used: Java 8, Spring Framework, SQL, Agile Methodologies

OTHER EXPERIENCES

Rochester Institute of Technology, United States · Aug 2023 - Dec 2023
Computer Science Dept Grader for CSCI 243 – Mechanics of Programming

- Evaluating and grading student assignments and homework submissions.
- Provide students with comprehensive explanations and assistance to address their queries related to assignment. Fostering a supportive learning environment by helping students grasp challenging concepts.
- Carefully analyze student-submitted code to identify logical errors or bugs. Offer valuable insights and improved solutions to enhance code quality. Ensuring students' assignment submissions meet all course requirements and guidelines as set by the Professor.

Rochester Institute of Technology, United States · Aug 2022 - Dec 2022
Computer Science Dept Grader for CSCI 605 - Advanced Object-Oriented Programming Concepts

- Assisted students with homework and assignment submissions for and conducted grading sessions with students to evaluate their assignment submissions.
- Assessed and evaluated programming submissions and provided comprehensive explanations to address students' queries related to assignment questions and programming principles.

PROJECTS (NON-ACADEMIC)

Food Ordering System | Java 8, Spring MVC, Spring Boot, Spring Security, MySQL, Spring JPA, Thymeleaf · Aug 2022

- Implemented Admin privileges that allow site administrators to perform CRUD operations on the database. Implemented user authentication functionality using Spring Security. Worked with JPA entities and MySQL to securely transfer data between the front-end and back-end. Worked with complex database queries and Entity Constraints to retrieve and update records.

Credit Score Classification | Python-Flask, Pandas, NumPy, Matplotlib, Seaborn, Random Forest, Tableau, JavaScript · May 2022

- Cleaned and preprocessed data to handle NULL values and duplicates. Created Tableau Dashboard to visualize the data and factors that impact the credit score. Implemented K-means clustering with 86% accuracy to cluster customers based on their credit scores. Implemented Random Forest Classifier to predict Credit Score based on certain factors with an 83% accuracy rate.
- Developed a full stack Flask application that predicts Credit Score category based on user input details along with displaying the graph visualizations.

University Admit Chance Prediction | Python-Flask, Pandas, NumPy, Matplotlib, Seaborn, Regression, HTML, CSS · Mar 2022

- Created an end-to-end application using Flask, HTML, CSS, and JavaScript that predicts the chances of a student receiving admission from a university.
- Cleaned and prepared data for data processing. Implemented Regression Model with an accuracy of 87% to predict the chances in percentage. Calculated the efficiency of the model using R-square value, Mean Square Error, and Mean Absolute Error

AWARDS, CERTIFICATES & TRAINING

- DO-330 Tool Qualification Training, August 2023
- DO-178C Practitioners Training, August 2023.
- Received 20% merit scholarship for MS Program, August 2021.
- Data Analysis with Python - IBM, October 2020.
- Earned Gold Badge for Java and SQL on Hacker-rank, July 2020.
- Web Development using Python & JavaScript- Harvard Univ, June 2020.

EXTRA-CURRICULAR ACTIVITIES

RIT Peer- Leader Advisor · June 2022 – Sept 2022, June 2023 – Sept 2023

- Providing comprehensive guidance to international students, addressing their diverse questions and concerns, extending beyond academic matters to encompass various aspects of their relocation journey.
- Offering expert advice on visa procedures, ensuring students understand and fulfill all requirements for a smooth transition.
- Assisting with post-visa procedures and creating essential checklists to help students stay organized and prepared for their journey.
- Facilitating informative webinars to deliver essential information vital for students before and after their arrival in the US.

Collins RIT Student Ambassador · Aug 2023 – Aug 2024

- Supporting on-campus events that are enterprise-coordinated.
- Hosting on-campus and online events with fellow ambassadors.
- Represent Collins brand on campus.