PURVA SANJAY AGARWAL

Boston, MA | 8576546076 | agarwal.pu@northeastern.edu | www.linkedin.com/in/purvaagarwal

EDUCATION

Northeastern University, Khoury College of Computer Sciences, Boston, MA, USA   **September 2023 - May 2025**
Master of Science in Computer Science, **GPA: 3.584/4.0**
Relevant Courses: Algorithms, Web Development, Programming Design Paradigm, DBMS, AI, Data Mining Techniques

PROGRAMMING SKILLS

Skills: Full Stack Development, Backend and Frontend development, Test-driven development, Database Engineering
Languages and Frameworks: Java, Python, JavaScript, Typescript, C, C++, Node.js, jQuery, R, Powershell and Bash Scripting, HTML/CSS, Bootstrap, React, Express, React Native, Web3.js, Ethereum
Database and Cloud: SQL, PL/SQL, Oracle, SQL Server, Tableau, SQLite, HSQL, MongoDB, NoSQL, PostgreSQL, MySQL, Azure, Amazon Web Services (AWS), Firebase
Testing and Tools: Jest, JUnits, Selenium, Docker, Kubernetes, Kafka, OpenShift, Postman, Android Studio, IntelliJ, GIT, Linux

PROFESSIONAL EXPERIENCE

Fidelity Information Services, Pune, MH, India   **November 2020 - August 2023**
Senior Analyst

1. **FIS CD Position Manager: New Client Onboarding**
- Configured the FIS CD Position Manager Application in **Unix** and **SQL Server**, enhancing reporting functionalities for **32 brokers/exchanges** and streamlining top-day closeout submissions, **saving 150 man-hours**
- Utilized extensive SQL expertise to address Priority 1 queries within 25 minutes, employing advanced querying techniques for **data analysis**, and completed the setup of **SQL Database**, **Application Servers**, and **Stream Gateway Server** in Unix
- Developed **Python** and **Bash scripts** for data manipulation, ensuring data integrity preloading into the database, and automated workflows for streamlined data management, **boosting efficiency by 27%**
- Leverged technical expertise for **Data Center Migration** and **Server/Application Migration**, engaging in close collaboration with cross-functional teams

2. **FIS CD Reconciliation Manager**
- Configured the Windows-based application and **MS SQL**, facilitating break difference reporting between back office and exchange files for regulatory compliance across 5 clients, **debugged and resolved critical queries**, ensuring prompt resolution within 1 hour
- Implemented advanced **SQL queries** for data manipulation within **complex financial database**, deploying optimization strategies to enhance IntelliMatch's performance with **large datasets**
- Engineered **Powershell scripts** to automate routine tasks and enhance application's functionality, utilizing **scripting languages** to customize and extend features, resulting in improved workflow efficiency
- Completed **Windows Server Migration** and **Application Upgrade** projects and spearheaded the **onboarding and training** of 6 new team members, equipping them with critical project knowledge and skills

Awards & Recognition: Received the 'Above and Beyond Award' by FIS in Q2 2022 and Q4 2021

PROJECTS

Learning Management System *(MongoDB, Express, React, Node.js)*   **February 2024 - April 2024**
- Led full-stack development from concept to deployment, utilizing Render.com for Node.js server and **Netlify** for frontend hosting
- Managed data operations and business logic with a **RESTful** API in **Node.js** and **Express**, integrating **MongoDB** for data storage
- Implemented dual sign-in functionality and **CRUD** operations for course management

Image Manipulation & Enhancement *(JAVA, Apache Commons CLI)*   **November 2023 - December 2023**
- Utilized **MVC architecture** and designed intuitive **CLI** and **Java Swing GUI** modes, **Apache Commons CLI** for automated workflow
- Incorporated advanced image processing features like flipping, splitting, brightness modification, various effects, compression, histogram generation, color correction, and split functionality for precise control
- Enforced robust testing and validation, supporting script files for testing and comprehensive command functionalities

Decentralized Messaging Application *(React Native, Ethereum, Web3.js, SQLite)*   **September 2019 - April 2020**
- Developed an **Android application** using **Java**, **React Native**, **SQLite**, and **Ethereum Whisper** protocol for decentralized networking
- Applied **ECIES** and **AES-256** encryption for message confidentiality, allowing only intended recipients to decrypt
- Empowered users to engage in one-on-one and group chats by adding contacts through QR codes containing their public keys

CERTIFICATIONS

- AWS Academy Cloud Foundations
- AWS Academy Cloud Architecting