

# SAHIL AGRAWAL

+1 (518) 961-9377 | Troy, New York | [sahil.agraw15@gmail.com](mailto:sahil.agraw15@gmail.com) | [LinkedIn](#) | [Github](#) | [Portfolio](#)

## EDUCATION

### Rensselaer Polytechnic Institute

Master of Science in Information Technology, GPA: 4.0/4.0

Troy, NY  
08/2023 – 12/2024

### Medi-caps Institute of Technology & Management

Bachelor of Engineering in Information Technology, GPA: 3.8/4.0

Indore, India  
08/2015 – 07/2019

## COURSEWORK

Software Design, Database Management Systems, Cloud Computing, Machine Learning, Data Structures, Analysis and Design of Algorithms, Artificial Intelligence, Computer Network, Data Analytics, Computer Programming

## WORK EXPERIENCE

### Rensselaer Polytechnic Institute

Teaching Assistant (Human Computer Interaction)

Troy, NY  
08/2023 – 04/2024

- Mentoring over 150 students on HCI principles, emphasizing user-centric design and clean coding practices
- Conducting lectures sessions, enhancing learning through code reviews, grading, and providing targeted feedback

### Publicis Sapient (Client: US Bank)

Associate Technology Level 2

Bangalore, India  
12/2021 – 08/2023

- Implemented microservices architecture, processing over 1M+ transactions daily in high-volume banking environment
- Authored 75+ APIs with GraphQL and REST, enhanced security compliance by 20%, supported concurrent 5K+ users
- Increased system efficiency by 50% through optimized integrations derived from targeted, in-depth research
- Applied ML algorithms to streamline and scale transaction processing and supporting real-time data analytics
- Led major legacy code refactoring for large-scale systems, enhancing performance and cutting bug rates by 25%

### FIS Global (Fidelity Information Services, Worldpay Inc.)

Software Engineer

Indore, India  
08/2019 – 12/2021

- Revolutionized system monitoring by developing custom analytics tools, improving fault detection rates by 9%
- Orchestrated a Kafka-based real-time data processing system, enhancing throughput while reducing lag by 12%
- Undertook research to create efficient frameworks that optimized processes for handling large datasets (~8B+ records)
- Boosted user satisfaction by 40% with an innovative platform, utilizing iterative feedback to refine user experiences
- Showcased innovative data framework at Tech summit, gaining recognition for its flexibility, robustness, and validity

## TECHNICAL SKILLS

- Programming Languages:** Python, Java, R, C, C++
- Web Development:** JavaScript, HTML, CSS, ReactJS, XML, JSON
- Data Science:** Pandas, NumPy, TensorFlow, Keras, PyTorch, Scikit-learn, NLTK, SpaCy
- Databases:** MySQL, PostgreSQL, Oracle, MongoDB
- Frameworks:** Spring Boot, Hibernate, Docker, Kubernetes, Apache Kafka, AWS, Maven, Gradle
- Tools:** Jupyter Notebook, Anaconda, RStudio, Git, Postman, IntelliJ, PyCharm

## PROJECTS

### United Airlines – Optimize Cargo Loading

- Integration of algorithms with Spring Boot APIs to automate and optimize cargo loading, cutting loading time
- Integrated computer vision technology to provide actionable, real-time operational insights and streamline processes
- Utilized Kotlin for frontend development, enhancing user interaction and experience in the cargo loading system

### GDO Tracking System Automation

- Streamlined GDO tracking process, automating data flow and approvals between interconnected systems
- Eliminated manual interventions, saving over 100 man-hours weekly, significantly reducing processing errors
- Developed a robust data extraction tool to efficiently parse and populate fields from extensive datasets

### Commuter Fare Adjustment Platform

- Engineered a web application to rectify commuter fare discrepancies using Java, ReactJS, and SQL
- Optimized backend Java algorithms for precise fare calculation, enhancing processing efficiency
- Facilitated seamless fare adjustments and transparent billing, boosting user trust and operational transparency

### Commodity Price Prediction System

- Utilized Random Forest, SVM, and regression models, merging economic, GDP, trade indices data, best accuracy 83%
- Identified critical market drivers using Time Series ARIMA and LSTM network models enhancing predictive insights