

# PAVAN AGARWAL

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## EDUCATION

University of Wisconsin Madison, Information School, USA

Aug 2023 - Dec 2024

Master of Science in Information Systems [STEM Designated]

**Relevant Courses** - Data Science Programming (Python), Introductory Analytics, Systems Analysis & Project Management.

Thadomal Shahani Engineering College, University of Mumbai, India

Jul 2017 - Aug 2021

Bachelor of Engineering in Computer Engineering with *Distinction*

(GPA 3.8/4)

**Relevant Courses** -Object Oriented Programming(Java), Data Structures & Algorithms, Machine Learning, and Web Design.

## PROFESSIONAL EXPERIENCE & PROJECTS

Quantiphi Analytics Solution Private Limited, India - *Framework Engineer (Data)*

Jul 2021 - Aug 2023

### Reinsurance Data Mart

- Efficiently implemented a data extraction and migration project, leveraging AWS Cloud Redshift that **enhanced data retrieval performance by 200%**, surpassing on-premise datastore capabilities.
- Developed automated ETL (Extract, Transform, and Load) pipeline using Python and SQL Script to load Ceded Insurance data daily into the Data Model, **leading to 100% Automation**.
- Streamlined data validation by creating Tableau dashboards across 3+ different source systems to substantiate Data Quality checks after loading data into the data model, **saving 2 hours of manual effort daily**.
- Integrated **20GB+** historical data of **200M+** rows into the Data Mart using PySpark for recording past performance and visualized data using Tableau for generating insightful reports for the higher management to make business decisions.

### Combined Loss Run Application Programming Interface (API) Creation

- Researched and evaluated new technologies to create end-to-end Restful APIs using Node.js and Express, migrating the old legacy API onto the new AWS Cloud, **resulting in 25% more availability and a 10% decrease in data processing time**.
- Maintained and monitored API performance and optimized as needed, resulting in **a 10% reduction in API errors (Dockers)**.
- Architected and designed the API and Generated business for the company by providing a new reporting system, leveraging the API to create pdf reports, assisting and aiding the other team members smooth transition to the new system, **maintaining 90% overall API quality, and reducing programming efforts by 95% during migration**.

### Adhoc Tasks

- Successfully resolved **40+ Adhoc tickets** by leveraging source code understanding and collaborating with business stakeholders to ensure data accuracy, **enhancing user experience by 80%**.
- Proactively raised access tickets and facilitated the resolution of Cloud Infrastructure access and Code Issues for various teams, enabling smooth business operations independently.

## ACADEMIC PROJECT

**Flight Reservation System** | HTML, CSS, Javascript, PHP, Database Design, Web Designing | [Github link](#)

- Designed and developed a fully functional interactive web application for online flight reservations enabling seamless and real-time booking of flight tickets from various internet-connected devices, **reducing time and effort by 70%**.
- Engineered a User Interface for already logged-in and logged-out users enabling a good user experience using sessions and cookies, **contributing to a 20% increase in user engagement**.

**Handwritten Character Recognition** | Python, Image Processing, Machine Learning, Tkinter, Software Development | | [Github link](#)

- Built a recognition system to recognize individual handwritten characters with the help of supervised learning algorithms of Support Vector Machine and K-Nearest Neighbor(KNN) reaching **an accuracy of 90% for digits and 65% for alphabets**.
- Compiled a desktop application that utilized real-time drawings for capturing images and employing dimensionality reduction techniques to help reduce parameters, and **decrease learning time by 50%**.
- Collaborated and presented to the professors the performance issues and bugs and completely refactored the code under their guidance, **scoring 90% in the final Python project**.

## TECHNICAL SKILLS

- Languages** - SQL, Python, JavaScript, HTML, CSS, Node.js, ShellScript, C, and Java | Public Cloud: AWS, GCP, and Azure.
- Certifications** - Amazon Web Services Certified Solutions Architect Associate, Amazon Web Services Certified Developer Associate, Tableau Desktop Specialist, Associate in General Insurance ( AINS - 101 )
- Databases** - MySQL, Microsoft SQL Server, Redshift, Oracle, PostgreSQL, etc
- Software** - Tableau, Microsoft Power BI, Microsoft Excel, Visual Studio Code, Microsoft Azure DevOps, JIRA, Git, and Miro.

## AWARDS & ACHIEVEMENTS

- Accomplished the prestigious feat of securing a **100% tuition scholarship**, bestowed upon a **select 0.01% of applicants**, highlighting exceptional academic prowess and dedication during my undergraduate.
- Contributed to business growth by successfully **converting 2 POCs into full-scale projects**, establishing long-term partnerships, and driving revenue generation using my influencing skills.

*Eligible to work in the US for Internship (CPT) and Full-time for 36 months(OPT + STEM extension) without sponsorship.*