

# YASWANTH CHOWDARY PAVULURI

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## PROFESSIONAL SUMMARY

- Over 4 years of hands-on IT experience in large-scale applications using Java and Python programming with multiple frameworks.
- Competent in agile, waterfall, and test-driven methodologies at service and product-based multi-national corporations.
- Extensive full-stack experience with projects of multiple domains to create custom middleware in system architecture.
- Experienced in Python and adept at developing Selenium scripts for efficient web automation and dynamic testing scenarios.
- Capable of rapidly acquiring new domain knowledge and supporting Data Science teams by taking the role of Data/ML engineer.
- Skilled in developing visual dashboards using Grafana, Prometheus, and PostgreSQL (InfluxDB) as the underlying data stores.
- Acquired significant experience working effectively as both an individual contributor and a collaborative team member.
- Proficient in software engineering methodologies, including Agile, Waterfall, Scrum, XP, and Test-Driven Development (TDD).
- Adaptable and quick to learn new technologies, apply them effectively, and deliver results in dynamic environments.

## TECHNICAL SKILLS

- Technologies: Java, JavaScript, PowerShell, JSP, DOM, JAXB, Java Beans, Python, C, C++/Q++, UML, PL/SQL.
- Tools: JUnit, JIRA, Workday, Smart Bear, iReport, Splunk, Azure Studio, Eclipse, Visual Studio, SharePoint, Swagger.
- Web Services: Apache Tomcat, WebSphere, XML, YAML, REST, SOAP, Servlets, WordPress
- Framework: Apache Wicket, Spring Boot, MVC, JFS, Hibernate, Spring JDBC, CMS.
- Cloud platforms: Azure, AWS, and Google Cloud.
- Database: DB2, SQL, MySQL, SQLite and MongoDB.
- Version control: GIT and good knowledge of TFS – Azure.
- Operating systems: Windows, UNIX, Linux, Macintosh, and Solaris.

## EDUCATION

- **Master of Science in Computer Science.** August 2022 – May 2024  
University of Houston – Main Campus | Houston, Texas GPA – 3.9/4.0
- **Bachelor of Technology in Computer Science and Engineering** June 2015 – April 2019  
GITAM University (Gandhi Institute of Technology and Management) | Visakhapatnam, India GPA – 9.05/10

## CERTIFICATIONS

- **Azure Data Engineer Associate DP-203:** Data Storage (ADF, Synapse), Pre-processing (ETL), Security, Optimization.
- **Google Data Analytics:** Data preparation, Validation, Visualization (Data Studio), Interpretation.
- **IBM Data Science Specialization:** Storytelling of data, Web scrapping, Data manipulation, Machine Learning.
- **Agile Methodology specialist:** Iterative approach, Continuous feedback, Adaptability, and Customer collaboration.
- **Artificial Intelligence Advanced coding:** Model performance optimization (Scikit, TensorFlow), Model deployment (Azure).

## WORK EXPERIENCE

University of Houston - Texas, USA

September 2022 – May 2024

IT Analyst, Graduate Instructional Assistant

### Description:

The University of Houston is a premier public research institution located in Houston, Texas. The campus provides state-of-the-art facilities, innovative research opportunities, and a vibrant environment to support student growth and success in academic and extracurricular journeys effectively, fostering excellence and leadership. Here, as part of the non-college work-study (NCSW) program, I started my journey as a tech referee as part of the UH athletics and sports board. Followed by an IT Functional analyst in technology bridge and finished my graduation as an Instructional Assistant at Hilton College.

### Responsibilities:

- As a graduate instruction staff, my daily tasks involve the ongoing revitalization of the Hilton campus-wide wireless infrastructure.
- It also involves strategically evaluating, and installing, security and linking new components for better performance and seamless integration with existing networks covering two data centers and their access points.
- Design and develop webpages, using CMS (Content Management System), HTML, CSS, XML, and WordPress. Manage IT inventory.
- As an IT analyst, I debug the errors from Process Jobs in campus solution software. Report and monitor error logs from servers.

**Technology:** CMS, Campus Solution (CS), WordPress, PowerBI, HTML, CSS, Network Security, PowerShell and QuickScore Analytics

**TATA Consultancy Services - Hyderabad, India.**

**September 2019 – June 2022**

**United Services Automobile Association (Client) - Java Developer, Consultant**

**Project Description:**

USAA is a leading provider of financial services catering to members of the U.S. military, veterans, and their families. USAA offers services, including insurance, banking, and investment solutions, on user-friendly platforms to help customers manage their accounts, policies, and transactions through secure digital channels. Enhancing features for the automobile account system, leveraging technologies such as Java, Mainframes, and Qpp (an internal object-oriented programming language). My contributions include developing critical components such as risk, vehicle, driver, and document, and adopting a full-stack development approach to ensure smooth functionality and integration.

**Responsibilities:**

- Design and develop Android and IOS Applications using Java, ReactJS, and Apache Wicket framework.
- Developing and managing each component related to automobile insurance quotes, logging all the transactions and events in mainframes, and diagnosing with live matrices.
- Coding and enhancement of new Modules using Rest APIs run validations of endpoints and end status codes using Postman.
- Creating OAuth and middleware to authenticate the incoming requests and log the exceptions to debug the data flow
- Develop Business logic Object-Oriented Programming Concepts and collaborate with clients to discuss new enhancements.
- Quickly learned the functionalities of Qpp, which is crucial in bridging the gap between modern applications and legacy systems.
- Involved in a pilot team for internal tool development of a document module used by Member Service representatives (MSRs).
- Creating REST API documentation using Swagger and YAML tools for seamless integration of application features and services.
- Create and Maintain GitLab Repository branches for Development, Staging, and Production environments followed by CRs and deploying the code through CI-CD Pipelines.
- Analyze, and debug to eliminate the unused code and identify the issue to enhance the functionality for greater performance.

**Technology:** Java, DB2, Mainframes, Qpp, Java Core, Q++, Reactjs, Spring boot, Web Services, SQL, Gitlab.

**Clove Technologies, Hyderabad USA.**

**April 2018 – June 2018**

**Machine Learning Engineer, Intern**

**Project Description:**

Clove is one of the leading providers of GeoBIM services globally integrating advanced geospatial technologies with Building Information Modeling for smarter infrastructure management. GeoBIM services enable clients to visualize, analyze, and manage spatial and construction data seamlessly. In this position, I imbibed the qualities of independent learning and worked on facial recognition as part of a biometrics security project deployed in multiple infrastructure facilities.

**Responsibilities:**

- Elevated my skills in understanding the concepts of Object detection and face recognition using OpenCV, Python, and Visual Studio.
- Image processing concepts like component analysis, HAAR, and LBHP classifiers are included in the project development.
- Implementation and enhancement of the above classifiers using MQTT server access, to run validations of raw image datasets, we solved the problem statement of unknown people in restricted access.
- Creating OAuth, bearer tokens for each person's image dataset to publish/subscribe the data using the MQTT server.
- After the project conclusion, I am associated with the core team on GAIT recognition to identify abnormalities in walking patterns.

**Technology:** Python, Visual Code Studio (code integration), Atom IDE, MQTT, Sketch editor, Bootstrap, CMake, and GIT.

**WORKSHOP & TRAININGS**

**Google-Android-Developer-Fundamentals-Workshop**

**September 2016**

- Endorsed by college to participate in skill development initiative by the Andhra Pradesh state for students who excel in academics.
- Trained by professionals in application development, android architecture, SDKs (Firebase, Ad Mob), JankStats, Gradle, and Kotlin.

**Experts Hub IOT Internship – Pune, India**

**December 2017**

- Shortlisted for winter training and internship in Sinhgad industries to work on IoT technology as part of the JIT project.
- Elevated my skills as an Application Architect in designing Arduino, Raspberry Pi, and Sensor setup with server-side programming, Bootstrap, HTML, and Python.
- At the project's closure, we developed a miniature Just-In-Time Inventory Management System using sensors, which automates the previously tedious process of tracking and replenishing the raw materials for inventory conveyor belts.

## **ACADEMIC PROJECTS**

### **Data Analysis – Spatial Visualization, New York City**

**May 2024**

- The research involved the exploration of the geo-spatial distribution of crime incidents across five boroughs of New York City.
- The research model resulted in developing a map indicating the locations of crime and parties involved at specific coordinates.
- We carried out meticulous analysis to understand spatial nuances and temporal trends to identify certain patterns for hotspots.

**Technology:** Python, Geospatial Data, Google Colab, GeoJSON, Folium, Beautiful Soup, SciKit-Learn, NLP and PowerBI.

### **Intrusion Detection Using Machine Learning**

**October 2023**

- Proposed a novel hybrid machine learning model combining the concepts of Logistic Regression and Decision trees.
- This hybrid model fortifies the cybersecurity systems, showcasing the effectiveness of ML-based intrusion detection systems.
- A hybrid model developed is a combination of Random Forest and Linear Regression (RF+LR) displaying enhanced predictive capabilities with increased accuracy. This model can be modified in the future to explore additional datasets of unstructured data.

**Technology:** Python, Colab, Machine Learning, Deep Learning, CNN, Model Development methodologies.

### **Data Analysis on MISSOURI STATE ACCIDENT DATA**

**January 2023**

- Aims to predict the severity of injury type in crash information by examining data of Missouri state on the government website.
- The result focuses on injury type and safety device correlation in vehicles using different machine-learning techniques.
- Deeply investigated various features and concluded that risk, gender, age, and vehicle type are crucial in formulating predictions to aid in improving emergency response protocols and reducing the impact of vehicle accidents.

**Technology:** Python, Visual Code Studio (code integration), Google Colab, Sheets, Flask, Beautiful Soup, SciKit-Learn, NLP.

### **Boundary Detection of Medical Images Using Edge Following Technique**

**April 2019**

- Completed journal publication with the help of my advisor by researching on image processing domain about boundary detection and noisy properties of medical images using edge following technique without prior information.
- Benchmarked the edge-based algorithm with a couple of functions and respective Gaussian masks to identify the noisy properties.
- Maintained procedural routine on MATLAB documentation with functions and processing of the dataset of various medical images.

**Technology:** MATLAB, Math Lab Editor (integration), Image processing, medical image dataset, Derivatives, and Edge operators.

## **LEADERSHIP & ACHEIVEMENTS**

- Volunteered at the UNESCO-MGIEP Educational conference as a technical services specialist for delegates and catalyst speakers.
- Secured top 2 percentile in Computer Science and Engineering at GITAM University and obtained the Mahatma Gandhi Scholarship.
- Student pupil Leader in high school, Undergraduate Class Representative, Cadet in youth social service.
- All-India South-zone inter-university and Corporate Basketball Athlete, High-School Badminton Champion.

## **ASPIRATIONS & HOBBIES**

- Working on the startup idea of sports and athletics with the guidance of SAAP by inspiring from the ideation of Khleo India.
- Tracking the IT trends on YCombinator, TechCrunch, and WellFound. Following the live examples on TEDx, Aperture channels, and orations of Jordan B Peterson, and David Goggins. Exercising Bhagavad Gita in building ideologies.
- Enjoy working on web development and web scraping to enhance my skills in building dynamic websites. Design with tools like Procreate, and CoreIRDRAW for Digital art. Now, aimed to create visually engaging NFT profiles with cutting-edge digital trends.
- Focused on learning prompt engineering and Large Language Models (LLMs), for advancing knowledge.
- Recreational Basketball, Volleyball, Badminton, and Table Tennis player. Engage in swimming and athletics for endurance training.

## **REFERENCES:**

- Keisha Lyons - Director, Enrollment Management IT, University of Houston.  
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