Bhavesh Naidu Kulluru

+1 (989) 451-8169 • bhavesh.ricky@gmail.com

www.kullurubhaveshnaidu.com • https://www.linkedin.com/in/bhaveshkulluru/

Education:

Manipal University:

Master of Business Administration (Executive-MBA)   Expected Graduation: **January 2027**

Saginaw Valley State University:

Master of Science (MS) - Computer Science & Information Systems   Graduation: **May 2025**

GITAM University:

Bachelor of Technology (B.tech) - Computer Science & Engineering   Graduation: **April 2022**

Work Experience:

HCL tech | Ford Motors Client, Troy, Michigan, USA   **July 17 2025 – present**

Senior Software Engineer

- Developed and maintained Java-based microservices for Ford's internal FEDEBOM (Ford Engineering Design Environment BOM) system, supporting the company's unified **Single BOM Process** across engineering, manufacturing, sourcing, and cost domains.
- Integrated FEDEBOM with enterprise systems like WERS, Teamcenter, GPDS, and cost/supplier modules to ensure seamless flow of accurate BOM data throughout the product lifecycle.
- Collaborated with cross-functional teams to implement features related to tooling, cost, supplier linkage, and part lifecycle management, while enhancing backend service performance and reliability.
- Contributed to DevOps pipelines (CI/CD), code quality (SonarQube), and explore AI/ML-based solutions for BOM data validation, anomaly detection, and process automation.
- **Neo4j Graph Database Migration**: Led the migration of large-scale Neo4j JSON datasets from NAS storage to Neo4j Aura cloud, designing a parallel batch processing solution with cloud-native execution via Google Cloud Run. Optimized for scalability, enabling automated runs when files in NAS or GCP Buckets change.
- **Ford Graph Complexity DB**: Designed and deployed an internal Ford Graph API leveraging Neo4j Aura, ensuring the service was aligned with correct cloud endpoints to guarantee zero-downtime operations. Enhanced security by implementing Single Sign-On (SSO) for authentication and role-based access.
- **FEDEBOM Development**: Engineered and maintained Java-based microservices within Ford's FEDEBOM (Ford Engineering Design Environment BOM), a centralized platform supporting the Single BOM Process across engineering, sourcing, manufacturing, and cost management.
- **Systems Integration:** Integrated FEDEBOM with Ford's legacy WERS system, Teamcenter, GPDS, and supplier cost modules, streamlining data exchange and ensuring accuracy across the full product lifecycle.
- EBOM Project Contribution: Supported the EBOM (Engineering Bill of Materials) initiative within FEDEBOM, building backend features for cost, tooling, supplier linkage, and part lifecycle management.
- **Cloud & DevOps Practices:** Developed, deployed, and monitored services through CI/CD pipelines (Jenkins, GitHub Actions), SonarQube code quality checks, and containerized deployments. Automated infrastructure tasks with Terraform and GCP services.
- **AI/ML & LLM Integration**: Partnered with Ford's advanced analytics teams to evaluate integration of AI/ML models and Ford's proprietary LLM into FEDEBOM for anomaly detection, BOM auto-suggestions, and intelligent process automation.
- **Cross-Functional Collaboration:** Worked with engineering, procurement, and manufacturing teams to design backend solutions that improved system reliability, performance optimization, and ensured consistent flow of BOM data across enterprise systems.
- **API Integrations & Platform Support:** Provided ongoing technical support for API integrations and troubleshooting for Ford's internal platforms (e.g., Insynch), ensuring minimal disruption to business-critical processes.

Child and Family Services of Saginaw, Saginaw, Michigan, USA

Volunteer IT Specialist   **May 2025 – July 2025**

Behaviourial Student Intern - IT Consultant   **August 2024 – May 2025**

- Provided technical support for **API integrations** and troubleshooting issues related to their **platform (Insynch).**
- **Web Development, migration and API Integration**: Used WordPress to enhance, maintain and improve application performance. Developed web interfaces using **HTML5, CSS3** and integrated **RESTful APIs** with full **CRUD** operations, streamlining data exchanges and significantly improving usability.Conducted API testing with Postman and enhanced application performance using WordPress.

- Supported EMR systems, streamlining patient data management through Power BI dashboards.
- **Bug Fixes and Maintenance**: Reviewed tickets to identify issues, executing regular bug fixes and system maintenance to ensure continuous system stability and improved performance.
- **Supported EMR systems** and led **data visualization projects using Power BI**, collaborating with healthcare professionals to implement effective technical solutions for patient data management.
- **Conducted comprehensive testing** API testing with Postman.
- Pulled and analyzed reports within a healthcare system using Insynch, ensuring compliance with **EMR (Electronic Medical Records) standards**, **HIPAA (Health Insurance Portability and Accountability Act)**, and **HL7 (Health Level Seven) regulations**.
- Collaborated with healthcare professionals to implement effective **technical solutions for patient data management**.
- **Developed An AI based Tool, Standalone Application Using Python and PyQt5 and Torch as well as GPT 2.0 integrated with it for specified Therapy Note generation, Saved 880k+ cost to company by this implementation !**

Saginaw Valley State University, Saginaw , Michigan , USA   **January 2024 – August 2024**
Graduate Research Assistant

- Conducted research on **Moving Target Defense (MTD)** techniques as part of a **cybersecurity project** focused on **anomaly-based intrusion detection and prevention systems (IDPS)**.
- Designed and deployed **sandboxed environments** for safe **simulation of real-world cyber-attacks and detection** validation.
- Integrated **Wireshark** for deep packet inspection, supporting **traffic analysis and attack pattern identification**.
- **Implemented honeypots** to attract and analyze malicious behavior, contributing to a dataset of real-time attack vectors.
- Utilized **behavioral-based monitoring** to detect abnormal user activity, focusing on parameters such as session length, access frequency, login time variance, and API misuse.
- Evaluated detection performance by tracking **false positive and false negative** rates, refining thresholds via machine learning algorithms.
- Produced detailed weekly reports on runtime monitoring insights and collaborated closely with faculty on project evolution and documentation.

Accenture, Bangalore, India   **October 2022 – August 2023**
Associate Software Engineer

- Delivered impactful technical solutions by developing tracking software and dynamic dashboards using Power BI, significantly improving data management and visualization.
- Designed and implemented Excel macros for complex tracking processes, optimizing workflows and enhancing productivity.
- Conducted SAP system assessments and collaborated with cross-functional teams to ensure seamless project delivery, meeting tight deadlines and quality standards.
- Troubleshot and resolved technical issues related to API integrations and performance, ensuring smooth platform operations and user satisfaction.
- Actively participated in **Agile Development Methodology**, adhering to two-week sprint cycles and ceremonies such as Sprint Planning, Story Grooming, Backlog Refinement, Daily Standups, and Retrospectives.
- Involved in **Agile Development Methodology** following **2 weeks of sprint** and ceremonies like Sprint Planning, Story Grooming, Backlog Refinement, Daily standups, retrospective.
- Conducted **SAP S/4 HANA migration projects**, ensuring seamless data migration and integration while maintaining system performance and integrity.
- Used new **Java 8** capabilities, like stream API for bulk data operations on collections using both streams and parallel streams and lambda expressions for communication between the business layer and database.
- Designed and Developed Micro-services utilizing the **REST framework, Spring Boot, and a secure API with JWT**.
- Involved in the design and development of the legacy application's transformation into a Microservice.
- Developed Docker consoles and containers for controlling the life cycle of applications.
- Developed views and controllers using **Spring MVC** and **Spring Core**.

Avexa (Health Domain Startup Company) ,India   **May 2022 – August 2022**
Software Developer
- **Developed data analytics and visualization tools** using **Power BI, Power Automation, MySQL, Java, HTML, CSS, and JavaScript**.
- Utilized SQL scripts to extract business reports and presented them in visually appealing formats using Power BI.

- Develop and maintain distributed data processing pipelines using **Apache Spark, including data ingestion, processing, and storage**.
- Developed applications using SDK code change and using **Java, C sharp, .Net, JavaScript, XML, HTML** and **MongoDB.**
- **Design, develop, and test the code** for feasibility in JUnit.
- Implemented **REST APIs and SOAP** that are invoked to implement various functionalities required as per business requirements.
- Participated in requirement **reviews and analyzed Modification requests and Enhancement requests.**

PlotMyData, India   **September 2021 – October 2021**
Data Science Industrial Trainee

- Successfully completed an industrial program on applied data science, focusing on real-world implementation of ML models for domain-specific use cases.
- Developed and deployed **supervised machine learning models** for:
- Parkinson's Disease **detection** using biomedical data
- Academic performance **prediction** via **regression techniques**,
- Fake news detection using **NLP** and **classification** algorithms.
- Gained hands-on experience with data preprocessing, feature selection, and evaluation metrics including accuracy, precision, recall, and F1-score.
- Worked under industry mentorship to fine-tune models and present outcomes in line with enterprise expectations.

1stop.ai , India   **June 2021 – September 2021**
Machine Learning and Data Science Intern

- Completed a structured training and project-based internship covering end-to-end ML workflows, from problem definition to model deployment.
- Mastered core Python libraries including **pandas, NumPy, matplotlib, seaborn, and scikit-learn** for data analysis and modeling.
- Applied data structures and algorithms in **model optimization** tasks, with emphasis on choosing the right technique for specific use cases.
- Demonstrated proficiency in implementing **classification, regression, and clustering models** with real-time datasets and visualizing results for decision-making.

Skills:

Languages: Java/J2EE **(Very Proficient),** C, C++, Python, Kotlin, JavaScript, HTML5, CSS3, XML, JSON, AJAX, Node.js, React, Next.js, Bootstrap, Spring Boot, Spring Framework, Solidity, Cypher, R
Frameworks: AngularJS, React, Svelte, Node.js, jQuery, TensorFlow, Keras, Plotly, MongoDB, SwiftUI
Cloud PlatformS: AWS (AWS Lambda, AWS CloudWatch, AWS EC2, AWS S3, AWS IAM), GCP
Containers: Docker,Kubernetes
Architecture and APIs: REST, RESTful API, SOAP, WebSocket
Database Management: Firebase, MySQL, Oracle, XAMPP, Neo4j, PostgreSQL, Redis
Design Tools: Visual Studio, Eclipse, STS, IntelliJ, UNITY Engine
Build Tools: Maven, Gradle , Yarn, npm, pipenv
Design Patterns and Principles: Microservices, MVC, Singleton
Version Control and CI/CD Tools: Git, GitHub, Jenkins
Testing Tools: Postman, JUnit, Mockito
Operating System: Windows, Linux, macOS, Android and Use of VM ware
Programming Tools and Unix/Linux: Unix/Linux command-line tools (awk, grep)
Business Tools: Microsoft Excel, Word, PowerPoint, Lucid Chart, Jira, Wireshark, SAP basis, Power BI
SDLC: Agile, Waterfall, Scrum
Projects (http://www.github.com/RiskyTrick**):**
- **AI Therapy Note Generator**
Developed a standalone application to automate structured therapy note generation (SOAP, DAP, etc.) using Python, PyQt5, Torch, and GPT-2. It transformed therapist workflows and saved over $880K in operational costs by replacing manual documentation with AI-driven automation.
Tech Stack: Python, PyQt5, Torch, GPT-2
- **Full Stack Java Applications**

Built scalable, enterprise-grade applications with Spring Boot (backend) and React (frontend). Integrated JWT-based authentication, REST APIs, and Docker containers, deployed via AWS EC2 for cloud scalability.
Tech Stack: Java, Spring Boot, React, Docker, AWS

- **Blockchain & Crypto Development**

Created smart contracts and decentralized apps (DApps) using Solidity and Web3.js. Experimented with token creation, NFTs, and ICO mechanics, showcasing deep understanding of blockchain architecture.
Tech Stack: Solidity, Web3.js, IPFS, Ethereum

- **Python-Based Utilities**

Designed multiple utility tools including stock market analysis, voice recognition systems, and real-time chat platforms. Focused on automation and system-level functionality using Python libraries.
Tech Stack: Python, Flask, Tkinter, Socket Programming

- **Game Development Projects**

Built a full-featured RPG game using Unity, with custom shaders, multiplayer features, and 3D assets modeled in Blender. Emphasized modularity and immersive design in gameplay architecture.
Tech Stack: Unity, C#, Blender, Shader Graph

- **Discord Chat Bot**

Developed a multi-functional Discord bot capable of automating server moderation, tracking cryptocurrency prices, and enabling interactive games. Widely applicable in server management and engagement.
Tech Stack: Python, Discord.py

- **Cloud & Containerized Applications**

Engineered and deployed microservices-based apps using Docker Swarm and Kubernetes. Automated CI/CD pipelines with Jenkins and integrated monitoring via Prometheus on AWS/GCP infrastructure.
Tech Stack: Docker, Kubernetes, Jenkins, AWS, GCP

- **Academic Projects (20+)**

Delivered over 20 academic projects including IoT-based smart water systems, facial recognition platforms, COVID-19 barrier systems, and predictive ML models. These projects span across hardware integration, ML, and software design.
Tech Stack: IoT, ML, Arduino, Python, C++ , AI/ML , various numerous technologies..

Declaration:

I Hereby Certify That All the Above Mentioned Information Is True and Valid to the Best of my Knowledge.

-Bhavesh Naidu Kulluru