

HARIHAR OMKARACHARI SUPRITH KUMAR

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EDUCATION

University of Texas at Arlington

Master of Science in Computer Science, Majors in Intelligent Systems and Databases. (3.5/4)

Arlington, TX

Aug. 2022 – May 2024

Visvesvaraya Technological University

Bachelor of Engineering in Computer Science and Engineering

India

Aug. 2012 – Jun. 2016

EXPERIENCE

Software Developer | Boto3, Inc. (Client : The Vanguard Group, Inc.)

Apr. 2025 – Present

Project : Vanguard Personalized Indexing

California, USA

- Developed a robust **VBA macro script** to automate daily data fetching, analysis, and complex computations, streamlining the preparation of trading accounts for portfolio managers; reduced manual processing time by **over 1 hour** each day, enhancing operational efficiency.
- Designed and implemented a centralized **database architecture** to store **trading, custodian, and account data**, enabling seamless access across applications and improving data availability, integrity, and retrieval efficiency for trading operations.

Software Developer | Induci Inc. (Client : The Vanguard Group, Inc.)

Jan. 2025 – Mar. 2025

Project : Vanguard Personalized Indexing

California, USA

- Designed and developed backend applications using **Python, Flask, and Dash** to streamline portfolio analysis and optimize trading workflows, reducing manual effort for portfolio managers by **40%**.
- Engineered scalable **data pipelines** handling **400+ high-net-worth client portfolios**, utilizing **AWS services**, and optimizing **tax-loss harvesting workflows** for enhanced efficiency and savings.

Software Developer | ConsultAdd, Inc.

Sep. 2024 – Jan. 2025

Project : E-commerce Platform Development

Arlington, USA

- Developed comprehensive **RESTful APIs** using **Python and Django** for e-commerce backend services, implementing features for user authentication, order processing, and payment integration.
- Executed end-to-end **testing and deployment** processes, including unit testing, integration testing, and automated deployment pipelines, ensuring robust code quality and seamless production releases.

Software Intern | Changing The Present (Voluntary, NGO)

Jul. 2024 – Sep. 2024

Project : Ecommerce Website for small Business

Arlington, USA

- Implemented automated **web scraping solutions** using **Python** to gather product data from multiple websites, increasing data collection efficiency by **40%** and supporting market analysis.
- Built end-to-end **data pipelines** that transformed raw scraped data into usable marketing insights, enabling more targeted campaign strategies and improved **decision-making** processes.

Student Assistant | University of Texas at Arlington

May 2023 – May 2024

Department: Office of Information Technology

Arlington, USA

- Developed and implemented a comprehensive **faculty hierarchy visualization feature** for UTA's **internal website**, designing **database queries** and **user interfaces** that improved information accessibility for over **500 users** across departments, resulting in enhanced transparency in organizational structure.
- Resolved critical **student authentication issues** by identifying root causes and implementing systematic solutions, which reduced related **support tickets** by **15%** and significantly improved student access to **online university services**.
- Engineered **Python scripts** to categorize and organize **ServiceNode tickets** for an **AI-driven ChatBot** initiative, collaborating with **cross-functional teams** to establish data foundations that streamlined issue resolution processes and created a framework for future **automation**.

Senior Software Engineer | Cisco Systems, Inc.

Aug. 2021 – Aug. 2022

Project : Hosted Collaboration Solution (Migration)

Bengaluru, India

- Led migration** of **15+ million phones** to **Cisco Unified Communications Manager Cloud** using **AWS services**, resulting in **30%** improved service reliability and scalability while reducing system downtime by **30%**.
- Developed **RESTful APIs** with **Python and Django** to facilitate migration workflows, integrating with **CI/CD pipelines** for **60% faster deployments** and continuous delivery.
- Engineered automated **testing frameworks** with **PyTest** integrated with **Jenkins**, increasing test coverage by **40%** and significantly reducing post-deployment issues.
- Implemented monitoring solutions using **Grafana** and **Prometheus** to track critical metrics during migration, achieving **99.9% uptime** throughout the process.

Software Engineer | Varite Inc. (Client: Cisco Systems, Inc.)

Jan. 2020 – Aug. 2021

Project : Hosted Collaboration Solution

Bengaluru, India

- Developed **microservices architecture** using **Java**, **Spring Boot**, and **Flask**, improving service scalability and cloud integration by **30%** while ensuring system reliability.
- Created the **OneClick dashboard** using **React** for real-time system monitoring, reducing debugging time by **25%** and accelerating issue resolution across development environments.
- Automated **call flows** in **UC applications** using **Python scripts**, decreasing manual intervention by **40%** and streamlining operational processes for enhanced efficiency.
- Implemented **CI/CD pipelines** with **GitLab** and **Docker**, resulting in **40% faster deployment** times and ensuring smoother system upgrades with minimal disruption.

Software Engineer | Tech Mahindra

Feb. 2017 – Dec. 2019

Project : British Telecom OSS

Bengaluru, India

- Developed **20+ features** for **FTTP and FTTC** networks using **PL/SQL**, **Java**, and **XML**, significantly improving network reliability and operational efficiency.
- Designed and implemented **automation solutions** for telecom network creation using **Python and Flask**, reducing manual effort by **50%** and enhancing network design performance.
- Migrated **5 TB of data** from **SQL Developer** to **Hadoop HDFS** using **Oracle Data Integrator** and **Apache Sqoop**, decreasing data retrieval times by **40%**.
- Established **CI/CD pipelines** with **GitLab CI/CD** and **Jenkins**, increasing deployment frequency by **60%** while maintaining high code quality standards.

Project : Mahindra IntelliPilot (Research and Development)

- Enhanced **obstacle recognition systems** using **TI mmWave radar** and custom detection algorithms, improving detection accuracy in various road conditions and environments.
- Developed **vehicle speed prediction models** using **scikit-learn**, resulting in **20% improved prediction accuracy** for autonomous driving decisions.
- Integrated **GPS and IMU sensors** using **Kalman filter techniques**, achieving more precise vehicle positioning through optimized sensor data fusion.

PROJECTS

KioskInsight | *Python,FPDF, PIL, OpenCV, AWS:(S3, Rekognition, Lambda, SageMaker)*

May 2024 – May 2024

- Automated **product recognition** and **shelf placement** in kiosks using **Python**, **AWS** achieving **70%** accuracy, generating detailed **reports**, and improving inventory management, reducing manual verification time by **80%**.

PatientVerify | *HTML, CSS, JS, AWS:(S3, Rekognition, DDB, Lambda, API, IAM)*

Mar. 2024 – Apr. 2024

- Built a **scalable healthcare** patient management app using **AWS with facial recognition**, reducing identification errors by **20%** and administrative burden, providing doctors with easy access to patient medical history for improved care.

Sentiment Analysis for Movie Reviews | *Python, TensorFlow, NLTK, Word2Vec, LSTM, CNN, RNN, BiLSTM*

Jan. 2024 – Mar. 2024

- Implemented a deep learning-based sentiment analysis model for movie reviews, achieving up to **87.83%** accuracy through advanced preprocessing and neural network techniques.

ResiComm | *HTML, CSS, Javascript, Laravel, PHP, NodeJs, React, MySQL, XAMPP*

Sep. 2023 – Dec. 2023

- Created an **academic web app** for a **housing community** with house booking, visitor passes, parking management, chat, and announcements, streamlining operations and enhancing **resident engagement by 40%**.

PARK-IT | *ReactJs, Firebase, smtplib, GCP: Spanner, Video Intelligence API, Bucket*

Jan. 2023 – Apr. 2023

- Designed a **parking management system** integrated with campus maps and sensors, enabling users to find, reserve, and navigate to available parking slots, reducing congestion and **parking time by 50%**.

Issue Tracker | *PHP, MySQL*

Sep. 2022 – Dec. 2022

- Developed a **location-based public grievances platform** enabling users to **report community issues** in real-time, **track resolution status**, and increase **civic engagement**, creating a **streamlined system** for addressing neighborhood concerns.

TECHNICAL SKILLS

Languages: Java, Python, SQL, JavaScript, C#, HTML, CSS, PL/SQL

Frameworks: Dash, Django, Flask, FastAPI, pytest, TestNg, Mockito, Hibernate, Spring Boot, Maven, Unittest, React, JUnit, log4j, JSP

Database / Cloud Technologies: MySQL, PostgreSQL, MongoDB, Hadoop, Hive, HDFS, AWS, Google Cloud Platform, Microsoft Azure

Tools: GitHub, Kubernetes, Docker, DBeaver, GitLab, BitBucket, Jenkins, Eclipse, Cramer, Rally, ServiceNow, Jira, HPALM, Truevision, Putty, Postman, Kafka, JMeter, Terraform, Sqoop, SQL Developer, Oracle Data Integrator, Grafana, Prometheus

Expertise: Full-stack web application development, Back-End Development, Mobile application development, Design and Analysis of Algorithms, Data Structures, Computer Architecture, System Design, Machine Learning, Artificial Intelligence, Distributed Systems