

VAMSHI KRISHNA GINNA

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EDUCATION

University of Maryland Baltimore County

Master's in Computer Science — CGPA 3.5/4.0

Aug 2022 – May 2024

Baltimore, Maryland

Vidya Jyothi Institute of Technology

Bachelor's of Technology Computer Science — CGPA: 3.8/4.0

Aug 2016 – Aug 2020

Hyderabad, India

WORK EXPERIENCE

SOFTWARE DEVELOPER | Ardent Privacy, United States

Aug 2023 – Present

- Spearheaded the revamp of an on-premises system to a cloud-native application, handling multiple tenants and dynamic database access using intelligent caching techniques. This transition improved scalability by over 30%
- Engineered and optimized system architecture using Test-Driven Development (TDD) to deliver high-performance GraphQL APIs secured with JWT authentication, resulting in a 40% boost in application efficiency and dynamic data retrieval.
- Designed a robust notification center with WebSockets to trigger real-time alerts for over 500 active users.
- Successfully deployed the application on AWS EC2, managing multiple EC2 instances for different modules to ensure high availability and optimal resource utilization. Reduced latency by 15% through refined EC2 instance orchestration.
- Independently developed dynamic PDF generation, automating privacy assessments and report generation, which streamlined the compliance process and reduced manual intervention by 20%.
- Developed a scalable file management system using Node.js, Express.js, and REST APIs, enabling seamless file uploads, downloads, and deletion. Optimized file handling capacity to accept files over 1GB, improving processing efficiency by 35%.
- Led the Angular front-end development for bulk file management, implementing comprehensive unit testing to guarantee robust performance and functionality.
- Contributed to advanced Natural Language Processing (NLP) and Artificial Intelligence (AI) initiatives by developing a metadata based data discovery model, enhancing data privacy risk identification accuracy by 20%.

SOFTWARE DEVELOPMENT MENTOR (TA) | UMBC, United States

Aug 2022 – May 2024

- Led and mentored 3 student development teams, guiding them in the implementation of software projects using agile and scrum methodologies. Encouraged best practices in code review, teamwork, and iterative development.
- Leveraged Jira with GitHub for project management, enabling efficient project tracking. Conducted regular sprint demos to showcase progress and gather stakeholder feedback, fostering a collaborative environment focused on industry-standard practices.
- Assessed 80+ student programming assignments in C, C++, and Python for courses like Operating Systems, Data Structures, and Machine Learning. Created grading rubrics for Machine Learning, including Math and Python solutions.

ASSISTANT SYSTEM ENGINEER | Tata Consultancy Services, India

Jan 2021 – Aug 2022

- Ideated Python automation to handle recurring failures of data-object transfer, reducing the monthly customer tickets by 12%.
- Developed REST APIs using Java Spring Boot to deliver scalable backend solutions, incorporating JPA, AOP, and JUnit. This approach improved data processing speeds by 20% while ensuring modularity and maintainability of the codebase.
- Configured and managed Google Cloud Platform resources for project deployments, optimizing infrastructure and enhancing scalability.

SOFTWARE DEVELOPMENT ENGINEER | Ezerka Technology Solutions, India

Jun 2019 – Dec 2020

- Engineered and integrated over 50 REST APIs using Express Js and Node Js for an inventory management application.
- Constructed 10-plus pipelines to transform the data and channelize them to MongoDB database and GPC storage buckets.
- Designed and built a React Js dashboard that displays metrics like daily sales, best-selling products, and low inventory items on charts and graphs using Chart.js.
- Played an integral role in onboarding, training, and mentoring 5 interns on the MERN stack, Git, and Google Cloud Platform.
- Established a shell script to monitor server health and send prompt email alerts to stakeholders, increasing the efficiency by 25%.
- Developed over 10 cron jobs to automatically install Java during server restarts and execute different applications with logging.

SKILLS

Languages: JavaScript, Java (Spring and Spring Boot), Python, C, C++, SQL, GraphQL, TypeScript

Databases: MySQL, MongoDB, PostgreSQL, Cloud Firestore, CockroachDB, Elasticsearch

ORMs: Sequelize, Hibernate, mongoose

Web Development: HTML, CSS, React Js, Angular, Node Js, Express Js, Bootstrap, Material UI, Redux, Tailwind CSS, WordPress

Cloud: Google Cloud Platform, Amazon Web Services

Tools: Git/GitHub, Bitbucket, Postman, Linux, Docker, Apache Tomcat, Heroku, Tableau, JUnit, Mockito, Maven, JPA, Hibernate

Design: Figma, Adobe XD, Photoshop, Canva

PUBLICATIONS

- Co-authored the paper "Energy Conservation System" published in the International Journal of Recent Technology and Engineering (IJRTE). [LINK](#)

PROJECTS

Confidence Estimation of a Model and Explainable AI | *Python, Machine Learning, Google Colab* [LINK](#)

- Utilized the CNN pre-trained model **ResNet 50** for classifying tumors in the scanned medical image to identify breast cancer.
- To handle the imbalanced dataset, applied the Leave-One-Out cross-validation technique which increased accuracy by 60%.

ENIMO - Energy Information and Monitoring | *Javascript, React Js, MongoDB, IoT, ML* [LINK](#)

- Built an IoT-based intelligent monitoring system to maintain industrial machinery using Machine Learning.
- Engineered a robust backend system and an elegant frontend dashboard using the MERN stack.

ESCOR – Exact Sciences OCR Portal | *Javascript, React Js, Photoshop, ML* [LINK](#)

- Contested on HackerEarth to develop a **MERN Stack** web application to digitalize handwritten medical forms using OCR.
- Fabricated a synthetic dataset of 500 plus handwritten form images on Adobe Photoshop using scripting.
- Established an NGINX Server with SSL Certificate on DigitalOcean's Droplet to set up APIs.

Ezerka Commerce | *React, Node Js, MongoDB, Express, GraphQL*

- Streamlined customer, vendor, and product management, reducing inventory tracking errors by 30%.
- Created a user-friendly interface using React, and migrated Express API to GraphQL, cutting development time by 20%.

Adani Ports Invoice Reconciliation System | *React, Express, Firebase, Razorpay*

- Built a system automating invoicing and payment processes, reducing administrative efforts by 50%.
- Developed an admin dashboard to track payments efficiently and implemented webhooks for real-time payment updates.

College ERP | *React, Firebase, Firebase Functions, TypeScript* [LINK](#)

- Developed an ERP system maintaining information for over 1,000 students, faculty, and staff, reducing exam scheduling workload by 40%.
- Used Firebase Functions to automate data processing and generate accurate seating arrangements for exams.

Swachh-Bharat Waste Disposal Kiosk | *Java, Maven, XML* [LINK](#)

- Programmed a Java-based Kiosk for disposal of waste bottles and generated a detailed report on the items disposed of, along with a unique coupon code.

LEADERSHIP & AWARDS

- **GAAC UMBC Committe Member:** Led efforts in organizing Meet and Confer conferences, conducting health insurance awareness sessions, and advocating for graduate assistants of UMBC.
- **Smart India Hackathon:** Among 20,000 plus national contestants, won first place for creating an invoice reconciliation.
- **IBM Hackathon:** Honoured with Best UI/UX award by the Vice President of IBM, India for designing a reactive analytical dashboard using React Js and Material UI.
- **Nasa Space Apps Challenge:** Won the top honor for creating an innovative game environment in Unreal Engine to explore the future colonization of Mars.
- **Social Media Champ:** Received the prestigious 'Social Media Champ' title at the Smart City Hackathon, presented by IT Secretary and IAS Officer Jayesh Ranjan, in recognition of exemplary contributions to social media engagement.

CERTIFICATIONS

- Google Cloud Certified Associate Cloud Engineer. [LINK](#)
- Microsoft Certified AI Azure Fundamentals. [LINK](#)
- Microsoft Technology Associate Web Development Fundamentals. [LINK](#)
- Qlik Sense Business Analyst. [LINK](#)