Vamshi Krishna Ginna

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Education

University of Maryland Baltimore County — **Aug 2022 – May 2024**
Master's in Computer Science — CGPA 3.5/4.0 — *Baltimore, Maryland*

Vidya Jyothi Institute of Technology — **Aug 2016 – Aug 2020**
Bachelor's of Technology Computer Science — CGPA: 3.8/4.0 — *Hyderabad, India*

Experience

Software Developer | *Ardent Privacy, Maryland* — **Aug 2023 – Present**
- Led the re-architecture of backend system design and GraphQL API implementation for enhanced scalability and application dynamism. Employed Test-Driven Development practices to validate functionality throughout development.
- Designed and implemented a notification center using WebSockets, triggering real-time notifications for over 500 active users, leading to a 50% increase in user engagement.
- Deployed the project on AWS EC2 instances, managing multiple EC2 instances for different modules, ensuring high availability and efficient resource utilization.
- Independently developed dynamic PDF generation from scratch, automating privacy assessments and report generation.
- Developed a file management system with REST APIs in Node.js and Express.js, enabling seamless file uploads, downloads, and deletion, and improving file handling capacity to accept files over 1GB.
- Work on Angular front-end for bulk file uploads, downloads, and their unit testing, ensuring robust functionality and performance
- Contributed to NLP and AI initiatives, developing a data discovery model leveraging metadata to identify data privacy risks.

Software Engineering Teaching Assisstant | *University of Maryland Baltimore County* — **Aug 2022 – May 2024**
- Acted as a Product Owner and Mentor for 3 student teams, guiding them in agile and scrum methodologies.
- Utilized Jira linked with GitHub for efficient project management and conducted sprint demos to showcase progress and gather feedback, fostering a collaborative environment focused on industry best 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%.
- Participated in and completed Google Cloud's 3-month training program led by industry experts, earning the GCP Associate Cloud Engineer (ACE) certification.
- 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 10-plus cron jobs to automatically install Java during server restarts and execute different applications with logging.

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.

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.

Skills

Languages: JavaScript, Java (Spring and Spring Boot), Python, C, C++, SQL, GraphQL, TypeScript
Databases: MongoDB, MySQL, Cloud Firestore, CockroachDB, ElasticSearch
ORMs: Sequelize, Hibernate, Mongoose
Web: HTML, CSS, React Js, Angular, Node Js, Express Js, Bootstrap, Material UI, Redux, Tailwind CSS, WordPress
Cloud: Google Cloud Platform, Amazon Web Services
Tools: Tableau, Heruko, Git/GitHub, Bitbucket,Apache Tomcat Postman, Linux, Docker, Junit, Mocktio, Maven, JPA, Hibernate
Design: Figma, Adobe XD, Photoshop, Canva

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.
- **Nasa Space Apps Challenge:** Won the top honor for creating an innovative game environment in Unreal Engine to explore the future colonization of Mars.

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**

Publications

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