

Megha Kalal

meghakalal036@gmail.com | (240) 501-5090 | [LinkedIn](#) | [GitHub](#) | [Portfolio](#) | Washington, D.C.

SUMMARY

Software Engineer with 3+ years of experience at **Amazon** and fast-paced startups, building systems for **e-commerce and enterprise platforms**. Delivered products that **improved operational efficiency, reporting visibility, and decision-making** across high-traffic applications.

EXPERIENCE

- Software Engineering Intern | Horizon World Salon | New York, NY May 2025 - Aug 2025
- Built a **user management portal** (MERN stack, JWT auth, RBAC) for invited speakers to onboard, manage profiles, and register for events, **replacing ad-hoc coordination**.
 - Developed a **speaker outreach pipeline** using Puppeteer and OpenAI APIs, extracting 30K+ profiles and **automating ~70% of outbound workflows**.
 - Deployed containerized applications on **Azure** VMs via GitHub Actions **CI/CD** pipelines, automating **Docker** builds and **Jest** testing.
- Software Engineer - DWD Merchant Assoc. - Bangalore, India Aug 2023 - Apr 2024
- Automated **end-to-end operational workflows**, including vendor reporting and daily summary emails, via Python scripts, Cron jobs, and SMTP, **cutting staff workload by ~60%**.
 - Designed and built a custom **POS and inventory system** for a retail business using React, Node.js, and PostgreSQL, **powering reconciliation for 300+ daily transactions**.
- Software Development Engineer 1 - Amazon - Bangalore, India Mar 2021 - Apr 2023
- Built **merchant onboarding and storefront tools** for Amazon **SmartCommerce** using Spring Boot, REST APIs, and cloud-native stack **enabling thousands of SMB sellers to launch online stores**.
 - Implemented **multi-tenant dashboards** by embedding AWS QuickSight into an Angular-based internal portal, with Redshift data ingestion, **enabling reporting for 300+ active merchants**.
 - Developed **alerting/ticketing workflows** in AWS CloudWatch, Lambda, SNS, and Prometheus exporters, **improving SLA compliance by 15%**.
 - Designed DynamoDB NoSQL data models and migration scripts (Bash, SQL); optimized high-volume read/write paths **reducing latency to ~160ms**.
 - Led the **agile development of an internal wiki**, improving cross-team communication and **reducing new-hire onboarding time by 25%**.
 - Conducted **code/design reviews**, on-call debugging, and JVM-based performance tuning, ensuring **high reliability** across distributed microservices.
- Full-Stack Software Developer - Delvit Solutions Pvt. Ltd. (e-commerce) - Bangalore, India Jan 2020 - Feb 2021
- Boosted user retention by 15%** by building SQL-based pipelines on Google BigQuery for **anomaly detection** and **root-cause analysis** across 1M+ rows, **surfacing key funnel drop-offs**.
 - Developed a React-based architecture for **payment workflows** using React Router and Redux Toolkit, **reducing page load time by 20%**.
 - Collaborated with three cross-functional teams to migrate cloud infrastructure and data from GCP to AWS, **decreasing system downtime by ~40%** through coordinated rollout.

SKILLS & CERTIFICATIONS

- Languages & Frameworks: Java, Python, TypeScript, JavaScript, Bash, FastAPI, Node.js, Angular, Hadoop
- Cloud & DevOps: AWS, Azure, Docker, Kubernetes, Terraform, GitHub Actions, Version Control (Git), Linux
- Data Engineering & Pipelines: MySQL, PostgreSQL, Apache Spark, GraphFrames, Kafka, HDFS, RabbitMQ
- Workflow & Tools: Jira, Confluence, Jenkins, CI/CD, RESTful APIs, Microservices, Agile/Scrum

EDUCATION

- University of Maryland, College Park, MD Aug 2024 - Dec 2025
- Master of Science in Information Systems, GPA: **3.97/4.00**
- Coursework: AI Systems, Cloud Computing, Big Data, Data Modeling, Predictive Modeling, Database Management, Product Management
- PES University, Bangalore, India Aug 2016 - May 2020
- Bachelor of Science in Computer Engineering, GPA: **3.8/4.00**
- Coursework: Distributed Systems, Data Structures, Operating Systems, Web Development, OOP, Machine Learning

PROJECTS

- Strategic Simulation System, National Defense University Dec 2025
- Built modular backend game logic (Flask) for turn-based disease spread and supply chain simulations, frontend adjudication console (React), and offline-compatible maps (Leaflet.js). Managed player actions, outcomes, and game state using MySQL and REST APIs.
 - Tools:** Flask, Leaflet.js, D3.js, REST APIs, System Design, Game Engine Logic
- InsightLoop - Slack-Native AI Agent Nov 2025
- Developed a Slack-integrated AI agent to automate weekly performance tracking for growth and operations teams by detecting KPI anomalies, correlating product rollouts from Jira, and delivering actionable insights.
 - Tools:** n8n, OpenAI GPT, BigQuery, Jira, Slack API

Real-Time Recommendation System using Kafka May 2025

- Engineered a real-time Kafka-based pipeline streaming ratings from UI to a PySpark backend, deploying the app on cloud with a live feedback loop for personalization. Handling 60+ simultaneous ratings with instant recommendations, validating scalability.
- **Tools:** Apache Kafka, PySpark, Python, Spark MLlib, Docker, GCP, Unsupervised Learning, Streamlit

Code Similarity Detection System Apr 2025

- Built a system to detect semantically duplicate code. Applied CodeBERT for token embeddings and trained a Siamese neural network on benchmark datasets to flag functionally equivalent code. Improved potential for automated code review and technical debt reduction.
- **Tools:** PyTorch, CodeBERT, Hugging Face Transformers, Siamese Networks, CodeSearchNet

SmartHire - AI-Powered Resume Screening System Mar 2025

- Engineered a modular AI pipeline for resume classification, job matching, summarization, and interview question generation. Leveraged transformer-based language models and semantic similarity to enable scalable, context-aware candidate evaluation.
- **Tools:** Python, BERT, LLaMA, Cosine Similarity, Prompt Engineering, NLP Pipelines

TEACHING/RESEARCH

- **Research Assistant** - Assisted [Prof. Anil K. Gupta](#) in developing an LLM classifier to detect AI skills in job postings, benchmarked against traditional ML and few-/zero-shot models.
- **Teaching Assistant** - Assisting [Dr. Bharti Motwani](#) in designing projects on HDFS, Apache Spark, Neo4j, MongoDB, and MapReduce for the upcoming cohort of the Enterprise Cloud Computing course.

ACHIEVEMENTS AND LEADERSHIP EXPERIENCE

- [3rd Place](#), AI Agents in Action Case Competition - developed a human-centric AI agent solution with cross-program student teams.
- [Runner-up](#), AGA Datathon, placed 2nd among 30 teams nationwide in a federal data competition.
- [Runner-up](#) at the second edition of Dish-a-thon 2020, participated by 64 teams.
- Three-time recipient of the CNR Rao Merit Scholarship at PES University, awarded to the top 10% students.
- Terrapin Scholarship Recipient for academic and professional excellence.
- Creative head at Delvit Solutions Engagement team, organizing multiple events for 100+ attendees.