Affan Arif Khamse

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EDUCATION

New York University   New York
Master of Science in Computer Science (GPA: 3.78/4)   *Expected May 2025*
Courses: Software Engineering, Data Structures & Algorithms, Machine Learning, Databases

University of Mumbai   Mumbai, India
Bachelor of Engineering in Computer Engineering (GPA: 9.00/10)   *June 2023*

TECHNICAL SKILLS

Programming Languages: C++, Java, Python, HTML, CSS, JavaScript, SQL
Frameworks and Libraries: Spring Framework, ReactJS, Django, REST API
Cloud and DevOps: Amazon Web Services/AWS (EC2, S3, DynamoDB, Lambda), Microsoft Azure, Docker, Kubernetes, Travis CI, CI/CI
Databases: MySQL, PostgreSQL, MongoDB, Firebase, Hibernate ORM
Testing & QA: JUnit, PyTest, Django Test, Chrome DevTools
Tools and Methodologies: Git, GitHub, Figma, Bootstrap, Agile (Scrum), UML, Object-Oriented Design

RELEVANT EXPERIENCE

Teaching Assistant   Jan 2024 – Present
New York University   New York, NY

- Coaching over 50+ students in Object-Oriented Programming (C++ and Java) and Unified Modeling Language (UML)
- Evaluating and grading assignments for the course "Programming Tools for Data Scientist" course, ensuring timely and constructive feedback on Python, Regular Expressions, NumPy, SciPy, Pandas, and Data Visualization, Led to a 20-30% improvement in students' grades

ACADEMIC PROJECTS

Inquis AI   June 2024 - Present
Flask, Python, Bootstrap, AWS, Firebase, Azure DevOps, TravisCI, Pinecone   GitHub upon request

- Spearheaded the development of a unified system for course assistance and content management, improving **student engagement and learning efficiency by 20%** through instant answers powered by professor-provided notes and files.
- Delivered end-to-end solutions as a **Full Stack Engineer**, seamlessly integrating a dynamic front-end with Flask (Python) and Firebase (NoSQL), achieving a **30% improvement in system reliability**.
- Architected and deployed high-performance, scalable **RESTful APIs**, optimizing data operations (retrieval, insertion, deletion) to enhance efficiency and scalability, supporting **1,000+ concurrent users**.
- Reduced project delivery timelines by 25% through effective **Agile sprint** management using **Azure DevOps**.

Live Flash Auctioning System   September 2024 - December 2024
AWS EC2, DynamoDB, S3, WebSockets, Amazon SQS, SES, CloudWatch, Flask, Python, REST APIs, DevOps   Demo GitHub

- Architected and developed the platform as a **Full Stack Engineer**, integrating **AWS EC2 with Auto Scaling**, DynamoDB, and S3 to ensure low-latency bidding and scalable performance, supporting 1,000+ concurrent users during peak traffic.
- Designed and deployed **REST APIs** for critical operations, including auction creation, bidding, and notifications, achieving a 30% improvement in system response time.
- Implemented **WebSocket-based communication** for real-time updates, reducing latency by 40% and enabling synchronized countdown timers and instant bid notifications across all participants.
- Built a robust **bidding pipeline** using **Amazon SQS** and **SES**, processing 1,000+ bids per minute with 99.9% accuracy and improving user engagement through personalized notifications.
- Employed **DevOps practices** to streamline the development process, creating and managing project **issues, epics, and sprints**, improving collaboration and reducing deployment time by 20%.

Roomio – Apartment Rental and Roommate Finder Web Application   February 2024 - March 2024
Django, Python, PostgreSQL, HTML, CSS, JavaScript, Bootstrap   GitHub

- Engineered an optimized **Entity-Relation (ER)** model and relational database schema, enabling efficient data queries and storage solutions.
- Developed full-stack features using Django, enabled efficient communication between front-end and back-end, focusing on scalable architecture and secure data transactions

VibeCheck (Fullstack Project)   September 2023 - December 2023
Django, Python, Bootstrap, AWS, PostgreSQL, Redis, TravisCI, Hugging Face   Demo GitHub

- Managed the development of a music-based social networking app using Django, Redis, and AWS, ensuring scalable real-time interactions and reduced latency by 30-40% through **Redis** Channels
- Directed the deployment on AWS, leveraging Travis CI for automated testing and deployment, ensured seamless integration and deployment workflows, utilizing **AWS Elastic Beanstalk** and Redis (ElastiCache) for improved performance and reliability
- Enhanced reliability through comprehensive **unit testing** with Django.test, achieving 87% coverage, improving application quality and maintainability