

# Affan Arif Khamse

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## Education

### Master of Science in Computer Science (GPA: 3.78/4)

New York University

Courses: Software Engineering, Data Structures & Algorithms, Machine Learning, Databases

New York, NY, USA

Expected May 2025

### Bachelor of Engineering in Computer Engineering (GPA: 9.00/10)

University of Mumbai

Mumbai, India

June 2023

## Technical Skills

**Programming Languages:** C++, Java, Python, Swift, HTML, CSS, JavaScript, SQL

**Frameworks and Libraries:** Spring Framework, ReactJS, Django, REST API

**Cloud and DevOps:** Amazon Web Services / AWS, Microsoft Azure, Docker, Kubernetes, Travis CI, CI/CD

**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

**Specialized Expertise:** Scalable Back-End Development, API Integration, Real-Time Systems Design

## Work Experience

### Software Teaching Assistant – Object-Oriented Programming

Jan 2024 – Present

Courant Institute of Mathematical Sciences @ New York University

New York, NY

- Mentored 50+ students in Object-Oriented Programming (C++ and Java), applying software engineering principles to real-world scenarios and debugging complex issues
- Conducted code reviews and provided constructive feedback on programming assignments, enhancing code quality, maintainability, and adherence to best practices

## Academic Projects

### Inquis AI - Software Engineer

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
- Designed and implemented a robust front-end using HTML, CSS, and JavaScript, supported by Flask for server-side logic and Firebase for real-time data, with error-handling mechanisms that **enhanced system reliability by 30%**
- 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, **handling peak user loads of 10,000+ sessions**
- Executed the design and deployment of REST APIs, optimizing operations like auction creation and bidding for a **30% reduction in response time**
- Collaborated with front-end and back-end teams to integrate WebSocket-based real-time communication, **reducing latency by 40%** and improving system reliability.
- 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
- Improved team efficiency by Employing **DevOps practices** to streamline the development process, reducing deployment time by 20-25% with better planning and collaboration

### 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
- Delivered full-stack features with Django, facilitating seamless communication between front-end and back-end for secure and scalable architecture

### VibeCheck (Full-Stack 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, ensuring scalable real-time interactions and reduced latency by 30-40% through **Redis Channels**
- Implemented a robust **CI/CD pipeline** and launched the app on AWS, leveraging Travis CI for **automated testing** and seamless integration workflows
- Ensured reliability through comprehensive unit testing with Django.test, **achieving 87% coverage**, improving application quality and maintainability