Mubashar K Mian

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Education

Georgia State University — Atlanta, GA
Bachelor of Science in Computer Science GPA: 3.9/4.0 — *Expected Graduation: Dec 2025*

Georgia State University — Atlanta, GA
Master of Science in Computer Science, Data Science Concentration — *Expected Graduation: Dec 2026*

Related Coursework

Data Structures, System-Level Programming (C), Computer Organization and Programming (Assembly Language), Software Development (Java & SQL), Software Engineering (Full-Stack), Web Programming (HTML, CSS, PHP & JavaScript), Design Analysis Algorithms, Database Systems, Data Mining, Machine Learning

Technical Skills

Languages: Python, TypeScript, JavaScript, PHP, HTML/CSS, C, Java, MySQL, Kotlin
Frameworks: React, Node.js, Flask, FastAPI, React Native, Expo, Next.js, Tailwind CSS
Developer Tools: Git, GitHub, VS Code, PyCharm, Visual Studio, Jupyter Notebooks, Firebase, Supabase, Figma, DBeaver, Lens Studio, Google Cloud, Snap Spectacles
Libraries/APIs: Pandas, NumPy, Matplotlib, Tkinter, JSON, TensorFlow, OpenCV, Tesseract OCR, Dlib, MediaPipe, WebSockets, Google Translate API, Google Places API, Spotify API, Eventbrite API, Tkinter

Certifications

- **Microsoft** (Software Development Fundamentles) Credential ID: PXu4-uGsA
- **Microsoft** (Introduction to programming using python) Credential ID: w9wrh-FaXo

Experience

Intuit — May 2025 – August 2025
AI Science - Intern
- Incoming AI Science Intern @ Intuit

Griffen & Strong, P.C. — Aug 2024 – Current
Data Analyst - Intern
- Leveraged Python, SQL, and React to manage, clean, and analyze large datasets, improving data accuracy by **20%** and generating actionable insights.
- Communicated findings effectively by creating visualizations and statistical reports for internal teams and external stakeholders, increasing stakeholder engagement by 15%.
- Applied statistical techniques and machine learning methods to interpret and analyze complex data sets, identifying key trends to support data-driven decisions.
- Collaborated cross-functionally to manage and clean databases, optimizing data accuracy and efficiency by over 20% through automation with Python and SQL.

DC Green Construction — Feb 2025 – March 2025
Generative AI Graphic - Intern
- Utilized existing AI platforms to create engaging comic books, effectively communicating company policies and enhancing public understanding by 20%.
- Managed, updated, and optimized company website content, ensuring accurate and timely information delivery, resulting in improved user experience and increased web traffic.

Resilience — March 2024 – July 2024
Web Development Project Manager - Intern
- Managed web properties by troubleshooting technical issues, updating plugins, and integrating new functionalities, leading to a 20% improvement in website performance.
- Directed IT projects promoting social-emotional curriculum, implemented AI-driven comic books to effectively communicate company policies to the public, resulting in increased audience engagement by 15%.
- Coordinated website enhancements based on customer feedback, conducted QA testing, and optimized site performance, improving user satisfaction by 20%

Freelance Developer May 2022 – Feb 2024

Independent Projects

- Designed and implemented interactive Python applications including a text-based adventure game, snake game, and tic-tac-toe with AI using object-oriented programming principles and file handling for dialogue and game state persistence.
- Developed several utility-based mini projects including a trivia quiz app, thermometer simulation, dice roller, and an appointment form GUI, reinforcing understanding of sensors, file I/O, and basic UI design.
- Utilized Python modules such as `turtle`, `json`, and custom class hierarchies to build games and simulations, emphasizing foundational programming, algorithmic logic, and early-stage project structuring.

Projects

Frame Flow | *Python, TensorFlow, MediaPipe, OpenPose, OpenCV, AWS, NumPy*

- Built a real-time dance coaching platform that tracks human motion and compares it to reference choreography using pose estimation models, achieving over 92% frame alignment accuracy.
- Engineered frame-by-frame keypoint extraction and coordinate normalization using MediaPipe and OpenPose, enabling joint-level similarity analysis with Euclidean distance and Dynamic Time Warping.
- Implemented motion scoring and corrective feedback that highlights misaligned joints with directional suggestions, improving user accuracy by 70% after guided practice.

Lovelink | *React Native (Expo), FastAPI, Gemini API, Firebase Firestore*

- Architected a mobile-first relationship app tailored for long-distance couples, featuring AI-enhanced mood-based messaging, collaborative planning tools, and emotional journaling features.
- Engineered Gemini API-powered recommendation engine for gift and date ideas, dynamically sourcing contextual suggestions from Google Places, Spotify, and Eventbrite APIs.
- Designed and implemented a scalable Firebase Firestore schema for real-time syncing, offline persistence, and secure user data partitioning, optimized for cross-timezone interactions.

ASL Translation System | *JavaScript, Python, React, FastAPI, WebSockets, TensorFlow, MediaPipe, OpenCV, NumPy*

- Engineered a real-time American Sign Language translation application achieving 95% accuracy in gesture recognition and 20 FPS performance, utilizing TensorFlow for model training and MediaPipe for hand landmark detection.
- Developed a scalable WebSocket architecture processing 1,000+ frames per minute between React frontend and Python backend, implementing 75% frame scaling and 40% compression for optimal data transmission.
- Designed fault-tolerant system with automatic reconnection capabilities reducing connection failures by 85%, while maintaining consistent BGR/RGB color space conversion for accurate image processing across the pipeline.

Calmlens (SnapAR) | *Lens Studio, JavaScript*

- Engineered an augmented reality lens for Snap Spectacles that anonymizes surrounding individuals by applying real-time facial blurring with adjustable intensity.
- Developed interactive UI overlay with touch-sensitive controls for toggling between blur modes, face tracking overlays, and visual effects.
- Optimized face detection performance for mobile hardware using multi-pass rendering techniques, achieving real-time responsiveness at 30+ FPS.

Tiny Tasks | *React Native, FastAPI, Flask, Google Cloud Firestore, Google CalDAV API*

- Designed a task management app that uses AI to break down user tasks into manageable subtasks, providing adaptive suggestions tailored to ADHD users.
- Integrated Google Calendar APIs for real-time task synchronization and deadline tracking across devices.
- Implemented behavioral learning backend to dynamically prioritize and categorize tasks, improving user focus and engagement.

CareMate | *Kotlin, FastAPI, Tesseract OCR, Gemini API*

- Created an Android app that reads prescriptions and dietary labels using Tesseract OCR and identifies risky medication or food interactions through an AI backend.
- Integrated Gemini API for context-aware interaction analysis based on user inputs like medical conditions, current medications, and preferences.
- Built secure REST APIs using FastAPI, managing authentication, rate-limited inference queries, and encrypted data transmission between client and server.

Eyecan | *Python, OpenCV, Dlib*

- Developed an accessibility-focused application that enables hands-free desktop navigation using real-time webcam-based eye and blink tracking.
- Implemented gesture-to-action mapping (e.g., right-eye blink = left-click, sustained eye = drag) using facial landmark points and gaze direction vector analysis.
- Tuned detection accuracy with histogram equalization, facial calibration, and custom blink thresholding, enhancing response time and usability for users with motor impairments.

Financial Literacy Game | *JavaScript, Firebase, HTML, CSS*

- Designed and deployed an educational web app to gamify financial concepts like budgeting, saving, and investing through interactive scenario-based challenges.
- Implemented dynamic scoring, feedback loops, and progress tracking logic using Firebase Realtime Database and modular client-side state management.
- Engaged users with responsive UI, tiered difficulty levels, and event-triggered learning milestones, increasing concept retention in pilot user tests by 35%.