IMRAN AHMED

(773) 983-5863 | ia237808@gmail.com | linkedin.com/in/imran12234| github.com/imran12234 | imrans.live (portfolio) | **USA CITIZEN**

EDUCATION

DePaul University **Expected Graduation June 2026**

Master of Science in Artificial Intelligence *Chicago, IL*

Bachelor of Science in Computer Science, ***GPA: 3.7****, Dean's List for 6 Quarters*

Relevant Coursework: *Algorithms, Database Systems, Data Structures, Discrete Mathematics, Computer Systems, Distributed Systems, Artificial Intelligence, Neural Networks, Linear Algebra, Software Testing, Machine Learning, Object-Oriented Programming*

- **Member** | Computer Science Society **Sept 2021 - Present**
- **Member** | Security Daemons **Sept 2021 - Present**

RELEVANT PROJECTS

ChiGo – AI-Powered Trip Planning Web App | Live Demo: chi-go-v2.onrender.com **March 2025 – Present**

Python, Django, PostgreSQL, OpenAI API, Google Places API, Google Routes API, Docker

- Built a full-stack Django web app that generates personalized multi-day Chicago itineraries using OpenAI GPT-4o-mini, based on user survey preferences for cuisine, activity level, budget, and neighborhoods.
- Designed an AI prompt pipeline enforcing structured JSON output with day-by-day activities, then enriched each item with real coordinates, photos, and addresses via Google Places API.
- Developed an interactive activity-swapping system allowing users to replace itinerary items with AI-generated alternatives, updating the database and session state in real-time.
- Integrated Google Routes API with Haversine fallback to calculate walk/drive transit times between consecutive itinerary stops.
- Containerized with Docker and deployed to Render with Gunicorn, managed PostgreSQL, and WhiteNoise for static file serving.
- Collaborated in a 6-person Agile team using GitHub pull requests and branching strategies across 3 sprint cycles.

AI-Powered Bill Splitter **March 2025 – July 2025**

React, Spring Boot, PostgreSQL, JWT, BCrypt, H2

- Built a full-stack web app to simplify group expense tracking and fair bill splitting using React (frontend) and Spring Boot (backend).
- Enabled real-time payment tracking by building interactive UI components in React that update payment status with checkboxes.
- Reduced backend complexity by designing RESTful Spring Boot APIs to handle expense creation, retrieval, and state changes.
- Increased data integrity by integrating PostgreSQL for production and H2 for local testing.
- Secured user accounts by implementing JWT-based authentication and password hashing with BCrypt.

Handwritten Equation Recognition using CNNs **March 2025 – June 2025**

Python, PyTorch, PIL, NumPy, MNIST

- Designed a custom multi-headed CNN architecture to decode 5-token arithmetic equations with digits and operators.
- Achieved 87.71% test accuracy after 70 training epochs with minimal overfitting.
- Generated a custom dataset using the Python Imaging Library (PIL) and MNIST digits to simulate scanned math problems.
- Implemented independent token-wise prediction heads and trained using multi-output cross-entropy loss.

WORK EXPERIENCE

Black Fox Security Solutions **June 2024 – Aug 2024**

Software Development Intern *Aurora, IL*

- Refactored and debugged Python and JavaScript scripts to improve system reliability and reduce runtime errors.
- Accelerated feature updates by collaborating with developers via Git and GitHub.
- Enhanced testing efficiency by creating automation scripts in Python.
- Built Agile development understanding by participating in daily standups and sprint planning

Humble Properties **Oct 2021 – Sept 2022**

IT Support Specialist *Chicago, IL*

- Resolved an average of 20 hardware and software issues per week, providing prompt and effective technical support to users**.**
- Effectively communicated technical solutions to non-technical users, ensuring a high level of user satisfaction and achieving a 95% satisfaction rate in user feedback surveys.

TECHNICAL SKILLS

Languages: Python, Java, TypeScript, HTML, CSS, C++, SQL

Frameworks/Libraries: Django, React, Node.js, Next.js, Spring Boot, Docker, Express

Databases: PostgreSQL, MySQL, MongoDB

Tools/Platforms: Git, GitHub, Linux, Postman, VS Code, AWS, OpenAI API, Google Places API

Machine Learning: NumPy, Pandas, scikit-learn, PyTorch, TensorFlow, OpenCV, Matplotlib