

# Youssef Mashaly

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## EDUCATION

### Georgia Institute of Technology

Expected Graduation: Dec 2026

*Bachelor of Science in Computer Science, Threads in Cybersecurity and Info/Networks*

Cumulative GPA: 3.8

- **Coursework:** Data Structures & Algorithms, Object-Oriented Programming, Databases, Systems & Networks, Computer Architecture, Cybersecurity, Linear Algebra, Discrete Math
- **Organizations:** GreyHat Cybersecurity Club, Wreck Racing, Arab Student Organization

## EXPERIENCE

### Mylo | Software Engineering Intern | Cairo, Egypt

June 2025 – Aug 2025

- Developed core features for Mylo, a leading fintech platform offering digital consumer finance, reducing customer credit approval time by **90%** by automating consumer onboarding processes with **Next.js** and **Amazon S3**
- Engineered a scalable audit logging system with **NestJS**, **PostgreSQL**, and **GraphQL APIs**, capturing **1,000+** user actions daily to strengthen traceability
- Implemented staff roles and role-based action authorization in consumer checkout and activation workflows using TypeORM and OpenAPI **REST APIs**, tested with **Postman**, improving security and streamlining operations
- Built modular **React** components with configurable layouts, reducing code duplication and enhancing scalability

### Georgia Tech | Research Assistant | Atlanta, Georgia

Jan 2025 – Present

- Building hybrid AI driving models analyzing autonomous vs. human driving behavior to improve vehicle safety
- Optimizing **PyTorch** neural network hyperparameters to increase lane-change prediction accuracy by **37%**, and validating results through visual/numerical testing in the **CARLA** simulation platform
- Enhancing model reliability by utilizing **Behavior Cloning** and **Deep Reinforcement Learning**, boosting the model's predictive accuracy for real-world deployment scenarios

## PROJECTS

### LaTeX AI Autocomplete | *JavaScript, HTML/CSS, Git*

- Boosted user LaTeX editing speed by **70%** by developing an AI-powered Google Chrome extension for Overleaf leveraging JavaScript and AI models for context-aware LaTeX command suggestions
- Integrated asynchronous **REST API** pipelines enabling context-aware suggestions from multiple AI models
- Increased editor adoption by designing a dynamic UI in **JavaScript/HTML** that tracks cursor position to deliver inline auto-complete suggestions, driving higher engagement and efficiency

### Spotify Wrapped | *Python, JavaScript, HTML/CSS, Git, JUnit, Django, Agile Scrum*

- Led a team of 5 to develop a full-stack web app providing **10+** interactive pages of personalized music listening statistics, deployed on Heroku and scalable to **500+** users
- Improved runtime efficiency by **50%** by refactoring backend queries and removing unused logic
- Secured user data with CSRF tokens and implemented frontend features including authentication, dark mode, multi-language support, and responsive UI tested on **20+** devices

### Atlanta Food Finder | *Python, JavaScript, HTML/CSS, Git, Django, Agile Scrum*

- Developed a comprehensive food-finder web app featuring a database of over **300** restaurants
- Engineered the back-end using **Python** with **Google Maps API** integration, providing map functionality and detailed restaurant information for advanced restaurant filtering capabilities
- Designed a user-friendly front-end with **Figma**, enabling restaurant favorites storage and personalized filtering

## SKILLS

**Languages:** Java, Python, TypeScript, JavaScript, SQL, HTML/CSS, R, Bash, C, Assembly

**Frameworks & Tools:** Django, React.js, Next.js, NestJS, AWS, Docker, Git/GitHub, JUnit, PyTorch, Figma

**Databases & APIs:** PostgreSQL, REST, GraphQL, Hasura, Swagger/OpenAPI, OAuth

**Methodologies:** Agile, Scrum, DevOps, CI/CD, Infrastructure as Code, Test-Driven Development, Code Reviews