

# DAVID CRIMI

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## Education and Certifications

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### York University

*B.Sc., Hons. Computer Science*

Sep. 2019 – Present

Toronto, Ontario

### AWS Certified Developer Associate

*Amazon Web Services*

June 2024 – June 2027

### Meta Backend Developer

*Coursera*

August 2024

## Relevant Coursework

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|-----------------------|-----------------------|-------------------------|---------------------|
| • Data Structures     | • Database Management | • Operating Systems     | • Computer Security |
| • Algorithms Analysis | • Software Design     | • Computer Architecture | • Advanced O.O.P    |

## Projects

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### Code Genius | *Next.js, Flask, PostgreSQL, Tailwind CSS*

August 2024

- Developed CodeGenius, an AI-driven code annotation tool that parses and analyzes code files to provide detailed explanations, readability scores, and context-aware suggestions, enhancing code comprehension and maintainability for developers.
- Integrated Next.js, Tailwind CSS, and Flask to create a seamless frontend and backend system, leveraging Groq and Llama models for accurate code analysis and annotation, and implemented solutions to overcome JSON data compatibility and LLM accuracy challenges.
- Implemented robust user authentication by integrating a PostgreSQL database, ensuring secure storage and management of user credentials.

### Six Degrees of Kevin Bacon | *Java, Neo4j*

July 2024

- Worked in a team to develop a backend Java project, designed to manage actor and movie information using a Neo4j database.
- Personally implemented RESTful API endpoints to handle HTTP GET and PUT requests, including a unique feature to compute the shortest path between any actor and Kevin Bacon, demonstrating advanced graph traversal and pathfinding capabilities.

### Alien Invaders Game | *Python, Pytest*

April 2024

- Developed a 2D arcade-style game in Python utilizing the Pygame library, featuring real-time collision detection, sprite management, and dynamic object interactions to simulate a spaceship defending against alien invasions.
- Implemented comprehensive gameplay mechanics including directional ship control, bullet firing system, and adaptive alien fleet behaviors with edge detection, enhancing user engagement and challenge.

### Optimal Uber Finder | *React, Flask*

January 2024

- Developed a dynamic web application using React for the frontend, coupled with a Flask-powered backend for efficient data processing and API integration, resulting in an average user cost saving of 30%.
- Employing Uber API and Mapbox API to create a user-friendly platform that will allow users to easily search for the most cost-effective Uber prices based on their location and a specified radius.
- Implemented a geospatial algorithm to divide a user-defined radius into grids, assigning coordinates at each grid's center; utilized Mapbox API to relocate these coordinates to the nearest roads, and integrated with Uber's API to fetch and compare real-time pricing data.

### Advanced Process Scheduler Simulation | *C*

December 2023

- Developed and implemented a comprehensive system scheduler simulator in C, utilizing First Come, First Served (FCFS), Round Robin (RR), and Shortest Job First (SJF) algorithms. Managed process states using multiple queues and produced detailed output files capturing process states, CPU utilization, and turnaround times.
- Enhanced code modularity and maintainability by organizing functionalities into distinct modules, promoting code reusability and streamlined debugging.

## Technical Skills

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**Languages:** Python, Java, C, HTML/CSS, JavaScript, SQL

**Developer Tools:** VS Code, Eclipse, Amazon Web Services, Android Studio

**Technologies/Frameworks:** Linux, GitHub, JUnit, React, Flask, Next.js, Neo4j