Ishan Phadke

Littleton, MA | ishan_phadke@student.uml.edu |
LinkedIn: www.linkedin.com/in/ishanphadke | GitHub: https://github.com/ishanphadke11
Portfolio: https://ishan-phadke-portfolio.vercel.app/

Education

University of Massachusetts Lowell, Lowell, MA *December 2026*
Bachelor of Science in Computer Science GPA 3.5
Relevant Coursework: Data Structures, Object Oriented Programming, Assembly Language Programming, Probability and Statistics, Discrete Structures, Machine Learning, Artificial Intelligence

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Skills

***Programming Languages**:* C, C++, Python, JavaScript, HTML, CSS, SQL
Technologies/Frameworks: *React JS, Tailwind CSS, REST APIs, Linux, MySQL, NumPy, Pandas, Scikit-learn, LLMs (Gemini, Ollama)*
Tools/IDEs: Git (GitHub, Bitbucket), Microsoft Visual Studio Code, LaTeX
***Certifications**:* Microsoft Office Specialist: Excel 2019 Associate

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Projects

Trip Planner (Python, JavaScript, ReactJS): *July 2025*

- Developed an itinerary planning application that helps users create, view, and manage personalized travel plans.
- Built the front end with React and the back end with Flask, communicating over RESTful APIs storing travel plans in SQL Lite database.
- Integrated an LLM (Gemini1.5 Flash) to generate personalized travel recommendations based on user interests such as family vacations, adventure sports, road trips etc.
- Integrated Google authentication with Firebase.

Network Analysis (C++): *January 2024*

- Created a tool to parse PCAP files and generate detailed reports on IP, TCP, UDP, and application-layer traffic such as HTTP, DNS, and FTP.
- Implemented dynamic plug-and-play parsers as shared libraries leveraging Factory Design Pattern to simplify the process of developing new application layer protocol parsers.
- Added functionality to convert CSV files to Apache Parquet format, allowing users to run SQL queries directly on the captured data for analysis.

Data frame (C++): *December 2023*

- Implemented a C++ version of a Pandas Data Frame to model data and perform functions such as group-by, slicing, and filtering.
- Applied core Object-Oriented design principles such as polymorphism and inheritance.

Experience

NETSCOUT – Westford, MA *June 2025 – Present*
R&D Intern

- Built a tool to detect non-UTF8 characters in the application layer of PCAP files.
- Created a multi-threaded TCP client simulator to send custom protocol messages for performance testing.
- Parsed PCAP files to extract and repackage packets into protocol-compliant messages based on internal specs.
- Tuned message generation with configurable transmission rates, achieving up to 700K packets/sec throughput.

University of Massachusetts – Lowell, Lowell, MA *January 2024 – December 2024*
Computing 1 Grader

- Responsible for grading homework assignments and quizzes for the Computer Science freshmen class of around 50 students.
- Provided constructive feedback to improve student's understanding of key concepts.

Interests

Martial Arts, Soccer, Basketball, Football, Cricket, Formula One, Travelling, Gaming