

VIMANGA UMANGE

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Education

University of Windsor, M.Sc. Computer Science, Windsor, ON, Canada

Expected December 2026

Wichita State University, B.Sc. Computer Science, Wichita, KS, USA

January 2016 – July 2021

Experience

University of Windsor - Graduate Assistant, Computer Networks, Windsor, ON, Canada

May 2025 - Present

- Assisted in course delivery for Computer Networks, including grading assignments and running lab/tutorial sessions.
- Provided support to 100+ students, clarifying concepts such as TCP/IP, routing protocols and network traffic analysis using Wireshark.

Etezazi Industries - Information Technology Specialist, Wichita, KS, USA

September 2021 – September 2024

- Managed company domain controllers to ensure availability and performance of Active Directory services.
- Oversaw server configuration & deployment (SQL, PBX, License/SharePoint/Terminal Servers, File Print & AD Server).
- Configured SSL VPN profiles and managed Sonicwall firewalls to optimize traffic flow and secure network access.
- Revamped and maintained a responsive company website using WordPress, HTML and CSS to enhance user experience.
- Successfully migrated **100+** user accounts to a new domain with zero disruptions to daily operations.

Etezazi Industries - Information Technology Intern, Wichita, KS, USA

July 2021 – September 2021

- Automated the inventory management process using Python scripts that lead to a **40%** reduction in scrap parts.
- Resolved **200+** IT complaints using centralized monitoring, enhancing productivity and reducing downtime.
- Stored company data in a database and wrote SQL queries to retrieve required information.
- Conducted hardware and software installation procedures.

Arimac Digital - Software Engineering Intern, Colombo 03, Sri Lanka

June 2017 – August 2017

- Aided engineers with end-to-end development enabling seamless delivery of software.
- Increased data log retrieval speeds by up to **60%** after eliminating the use of global caches.
- Worked with product owners to understand use cases and develop them into features.
- Assisted with testing new features for project releases.

Research Projects

Evaluating Hypergraph Construction Strategies for Hypergraph Neural Networks, University of Windsor (Co-Author)

April 2025

- Researched top-k densest subgraph augmentation to enhance HGNN models on real and synthetic datasets.
- Achieved **+4.0%** accuracy gain in movie profitability prediction; analyzed performance trade-offs across domains.

NLP Techniques for Automated Glossing of Classical & Low-Resource Languages, University of Windsor (Co-Author)

March 2025

- Developed a framework for generating interlinear glosses for classical/low-resource languages using transformer models.
- Focused on low-resource settings with complex morphologies like Ancient Greek and Arapaho.

Projects

AI-Powered Movie Search Application

- Developed a React application with natural language processing capabilities using Hugging Face's API models.
- Integrated with TMDB API to fetch movie data based on semantic understanding of user queries.
- Implemented responsive UI with Material-UI, featuring animated cards and dark/light mode toggle.

Free Game Scraper

- Backend: Built a Flask API scraping 6+ platforms (Steam/Epic/GOG) with caching (30-min TTL) and fallback JSON.
- Frontend: Dynamic UI with real-time countdowns, lazy loading, and accessibility (keyboard nav, ARIA).
- DevOps: Deployed API on Render, frontend on GitHub Pages.
- Optimizations: Compressed thumbnails, debounced search, and carousels (no external libs).

Senior Capstone Project: Team Lead, WSU GO, Wichita State University, Wichita, KS, USA

August 2020 – May 2021

- Led a 4-member team to develop a cross-platform student management mobile application prototype within 4 months.
- Designed and implemented a weather feature that displays real-time and forecast data using the OpenWeather API.
- Created the UI/UX for the weather page using the Dart programming language and Flutter framework.

Skills

- **Programming Languages:** Python, JavaScript, C#, Java, C++, SQL, Dart, PHP
- **Web Development:** HTML/CSS, React, WordPress
- **Frameworks & Libraries:** PyTorch, Tensorflow, Flutter, .NET
- **Languages Spoken:** English (fluent), Sinhala (fluent)
- **Dev. Tools:** Git, PostgreSQL, Android Studio, VS Code, Jupyter
- **Cloud & IT Infrastructure:** Google Cloud, Active Directory, Windows/Linux OS, Hyper-V, SonicWall, Barracuda, Ubiquiti
- **Other Tools:** MS Office Suite, Power BI, SharePoint