

EDUCATION

The University of Toledo, Master of Science in Computer Science **GPA: 3.96** **Aug 2021 – Aug 2023**
Tribhuvan University, Bachelor in Computer Engineering **Sep 2013 – Oct 2017**

TECHNICAL SKILLS

Programming/Scripting: Python, Javascript (JS), C#, C, C++, VHDL, PHP, HTML, CSS, SQL
Frameworks & Libraries: React.js, Node.js, .NET 6, ASP.NET Core MVC, Laravel (PHP), Flask, Numpy, Pandas, Seaborn
Cloud & Databases: AWS, MYSQL, Microsoft SQL, MongoDB, Firestore
Version Control: Git, Github
DevOps and Containerization: Docker, Kubernetes
Data Science & Machine Learning: LSTM, Transformer, BERT, CNN, GAN, U-NET, OpenCV

WORK EXPERIENCE

Software Developer (Research) - UToledo College of Medicine and Life Sciences (COMLS), Toledo, OH **Aug 2021 - Present**

- Worked closely with Cardio-thoracic researchers from the UToledo Medical Center (UTMC) on heart surgery data analysis using ML models, exhibiting adeptness in data analysis and interpretation.
- Collaborated with instructors and consultants from the **COMLS** to initiate the development of an automated multimodal assessment platform for simulation-based medical education and training.
- Built an intuitive React.js web client that streamlines curriculum generation, model training, and learner performance visualization.
- Devised and implemented a microservice-oriented backend architecture using Python and Node.js, establishing over 45 RESTful API endpoints to seamlessly integrate with the web client and NLP System.
- Managed and optimized backend deployment processes on AWS, overseeing server configuration and code integration to ensure stable and high-performing live environments.
- Leveraged Docker and Kubernetes to optimize deployment, scale the backend services efficiently, and ensure high availability, enhancing the system's resilience and responsiveness.
- Utilized version control with Git and streamlined deployments using Jenkins for CI/CD, ensuring code integrity and seamless deployment processes.

Software Engineer Intern - Quantiphi Inc, Marlborough, MA **May 2022 - August 2022**

- Engineered **Fargo**, a Virtual Agent for **Wells Fargo** using Dialogflow CX, enhancing the banking experience for 70+ million customers.
- Undertook the responsibility of reviewing and validating code written by Wells Fargo developers.
- Conducted thorough testing, including unit tests, and debugging to ensure software reliability and reduce potential errors.
- Worked effectively with multiple global SCRUM teams across different time zones, successfully utilizing Agile methodologies to expedite project execution and improve productivity.
- Collaborated with NLP linguists, UAT testers, Frontend developers, Product Manager, and Product Owner, and led the team in bi-weekly product update demo meetings.

Software Engineer – FOCUSONE Nepal Pvt.Ltd, Kathmandu, Nepal **July 2018 – May 2020**

- Led the development of the Vehicle Tax Calculator "VTAX" for the Department of Transport Management (DOTM), Nepal, using Python, PHP, JavaScript, and MySQL.
- Specialized in front-end development, creating dynamic and responsive websites using React.js, HTML, and CSS, and integrating user-friendly UI/UX designs.
- Architected and implemented multiple RESTful API endpoints for data retrieval and submission, integrating complex backend logic to enable seamless user interactions.
- Designed and optimized a MYSQL database schema, frequently writing SQL queries against the relational database to support robust and efficient application development.
- Demonstrated strong teamwork by collaborating with various project stakeholders and maintaining documentation throughout the Software Development Life Cycle (SDLC).

PUBLICATION AND PRESENTATION

- [Automated Multimodal Performance Evaluation in Simulation-based Medical Education using Natural Language Processing](#) published and presented a poster at **ACM/IEEE 14th International conference on Cyber-Physical Systems**, May 9-12 | SA, Texas, 2023
- **Improved Multimodal Data Acquisition and Synchronization through NLP Enabled Event Detection in SBME** | MS THESIS | Aug 2023
- Co-authored a scientific abstract [Role of Smart Wearable Devices in Postoperative Care of Cardiac Surgery Patients](#), presented at the **59th Annual Meeting of The Society of Thoracic Surgeons**, Jan 21-23 | San Diego, California, 2023