# **BISHWO DAHAL**

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#### **EDUCATION**

## **UNIVERSITY OF LOUISIANA AT MONROE** - Monroe, USA

Aug 2022 - June 2026

Bachelor Of Science In Computer Science GPA: 3.96/4.0

#### SKILLS

Languages: C++, JavaScript, Java, Python

Technologies & Tools: Node.js, VueJS, PyTorch, Git, GitHub, CI/CD, Postman, Apptainer, Docker, Linux, AWS, OOP, Ruby on Rails

#### **EXPERIENCE**

# OAK RIDGE LEADERSHIP FACILITY(OLCF) AT OAK RIDGE NATIONAL LABORATORY - Oak Ridge, TN, USA SOFTWARE INTERN

Sep 2024 - present

- Developing **supercomputer job simulation program** named, **"Emu"** using rails and PostgreSQL, designed to educate interns and students on supercomputer architecture and operational mechanisms.
- Collaborating closely with mentors and team members through ORNL internal group projects including myOLCF website.

#### **RESEARCH INTERN** | GitHub

May 2024 - Aug 2024

- Implemented container solutions utilizing Apptainer enhancing portability across various OLCF systems (i.e. Frontier and Odo).
- Improved the runtime efficiency of a PyTorch model **to 60%** by transitioning from bare metal single node to containerized solutions utilizing multiple nodes and GPUs.
- Ported GPU tests from Frontier to Odo and utilized Git-based version tracking system to facilitate precise project monitoring, integration, and quality control.

## NEPAL EX PARCELS & LOGISTICS - Sinamangal, Kathmandu, Nepal

**LEAD SOFTWARE ENGINEER** 

Aug 2019 -Sep 2022

- Developed an analytical software solution using Agile methodology resulting in 30% improvements in customer data analytics.
- Led a team of 4 software developers and designers.
- Engaged in strategic planning and project management discussions with the company's board members.

#### **PROJECTS**

#### **NEPSE ANALYSIS** | GitHub

- Created a stock analysis tool rooted in historical stock price patterns, enabling the calculation of technical indicators based on past stock price fluctuation resulting in **45% increase** in predictive accuracy.
- Constructed Graphical User Interface with interactive charts using front-end libraries for analyzing trade patterns.
- Developed and implemented backend logic and REST APIs to manage data across 4 MYSQL databases, reducing data retrieval times by up to 50%.

#### WORD SUGGESTIONS | GitHub

- Developed a word analysis tool in C++ and JavaScript, "Auto-suggestions" capable of identifying misspelled words and suggesting the closest correct word suggestions.
- Employed advanced data structures, algorithms, and precisely crafted lambda functions to optimize the compilation process and minimize memory footprint.

#### COMMAND LINE FILE MANAGER | GitHub

• Engineered a command-line utility in C++, addressing a gap in Windows's command-line functionality, allowing users to **generate**, **open**, **and modify multiple files** at once inside a command line.

#### **ACTIVITIES**

GDSC-ULM - Google Developer Students Club, ULM, Monroe, LA

GDSC LEAD

Aug 2023 - Aug 2024

- Successfully hosted the first ever hackathon along with 15 events in partnership with DXC, IBM, and Google.
- Managed a team of 6 members, ensuring effective collaboration within the team, university, and sponsors.

## SEQUELIZE ORM - Open source Project

CONTRIBUTOR

Mar 2021 - May 2022

• Served as an Issue Reviewer for the Sequelize project and managed documentation for sequelize.org.

#### **PUBLICATION**

Dahal, Bishwo, Abraham, Subil, & Maccarthy, Elijah. (Dr). **Performance Evaluation of Containerized ML Models on Frontier/Odo.** *in preparation*.