

BIRAJ SILWAL

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EDUCATION

Bachelor of Computer Science
University of New Mexico (UNM)
GPA: 3.54 / 4.0
Expected: May 2022

COURSEWORK

Data Structures and Algorithms
Design of Large Programs (OOD)
Computer & Network Security
Linear Algebra
Set Theory & Probability
Principle of Artificially Intelligent -
Machine (In Progress)

LANGUAGES

Proficient: JAVA • Python •
JavaScript • Bash

Familiar: C/C++ • HTML • CSS •
SQL • Dart • Go • XML • JSON

SKILLS

Algorithms • Data Structures • OOP
• UX/UI • Web Application •
Android Application • Bootstrap •
Front-End • Back-End • GCP •
Heroku • AWS

TECHNOLOGIES

PWA • Vue.js • React • GraphQL •
Android Studio • MongoDB • Git •
IntelliJ • Visual Studio • Terminal •
PyTorch • TensorFlow

EXPERIENCE

App Developer, UNM School of Engineering

📅 Apr 2020 - Present

- Developed Server-Side Rendering (SSR) Progressive Web Application (PWA) using **Vue.js** framework (Nuxt.js) as a front-end and MongoDB as a back-end
- Used Keystone.js as a Content Management System (CMS)
- Deployed an app (success.unm.edu) to Amazon Web Services (AWS) EC2 instance
- Designed and programmed the UI/UX
- Other technologies used: Node.js, GraphQL, and Bootstrap

Lab Assistant, UNM Moses Biological Computation Lab

📅 Oct 2019 - Present

- Assisted in creating Convolutional Neural Network (CNN) based image classifier using **Python** and Tensorflow
- Deployed trained models into the robot and documented the outcomes
- Created and manipulated data sets of thousands of images to train machine learning model

IT Assistant, UNM El Centro de la Raza

📅 May 2019 - Aug 2020

- Used QUERY and other Google Sheets formulas connecting multiple sheets to manage student-related data of 60-80 students
- Designed User Interface (UI) of student profile dashboard by creating different charts in Google Sheets to track student's academic progress
- Ensured users are highly satisfied; Met and exceeded expectations

PROJECTS

Distributed Auction, Desktop Application

📅 May 2020

- *Description:* Simulation of a system of multiple Auction Houses selling items, multiple Agents buying items, and a Bank to keep track of everyone's funds
- *Role:* Responsible for implementing **JAVA** Socket, Synchronization, and Thread to concurrently run multiple Auction Houses to communicate with multiple Agents and Banks

myLobo, Android Application

📅 Dec 2019 - Jan 2020

- *Description:* Used **JAVA** to develop a solo project app - a marketplace for students to sell or buy from other college students and social media to capture and share photos
- User can sign up using *Parse* authentication and can log in and log out of their account
- Used *Parse Server* as a back-end and deployed an app to Heroku
- Created an online chat service

SimpleTweets, Android Application

📅 Nov 2019

- *Description:* Developed a solo project - a Twitter clone app that allows a user to view Twitter timeline using **JAVA**
- Implemented "Android Async HTTP" to send an asynchronous request to "Twitter REST API"
- User can sign in to Twitter using OAuth login and can compose and post a new tweet

AWARDS AND HONORS

- 2020 Accepted to UNM El Puente Research Fellowship out of 78 applicants
- 2020 Finalist for the 2019-2020 UNM Mobile App Contest out of 22 teams
- 2019 Admitted to Honors College, University of New Mexico
- 2018 Finalist at FIRST Robotics Competition Central Illinois Regional – one of the 63 regional competitions around the USA
- 2014 - 15 Won six national science competitions as the President of the GoldenGate Robotics Club, Nepal