

APAR POKHREL

Grand Prairie, Texas

☎ 682-246-9671 | ✉ aparpokhrel.ap@gmail.com | [in linkedin.com/in/aparpokhrel](https://www.linkedin.com/in/aparpokhrel) | github.com/pokhrelapar

Education

The University of Texas at Arlington

May 2022

Bachelor of Science in Computer Science
Minor in Mathematics

CGPA: 3.81/4.0

Technical Skills

Languages: C/C++ (3+ years), Python (2+ years), JavaScript, Java, Matlab, MySQL (< 2 years)

Tools: VS Code, GitHub, Git, L^AT_EX, Jupyter, Arduino, Virtual Box, gcc/gdb

Technologies/Frameworks: Windows, Linux, ReactJS, Bootstrap, NodeJS, TensorFlow, Keras, Sklearn, Pandas

Experience

Senior Design Software Developer

August 2021 – May 2022

University of Texas at Arlington

Arlington, Texas

- Collaborated on designs and build for an underwater ROV with a \$800 budget for the IEEE Robotics Competition.
- Gained Agile SDLC methodology experience through daily scrum meetings, project planning, requirements elicitation, sprint backlog, and peer review and testing.
- Designed a ReactJS web application that serves as a controller by interacting with Python HTTP servers for relaying requests for mechanical control and wireless video streaming. Serial communication was integrated with Axios API.

Peer Academic Leader

August 2021 – May 2022

Division of Student Success, University of Texas at Arlington

Arlington, Texas

- Supervised and instructed three UNIV freshmen courses for the College of Engineering and Science.
- Individualized lesson plans for an average class size of 30 students on academic and student affairs policy, social opportunities, major exploration, engineering practices, and other areas of academic success.
- Maintained official university course records and documented student progress of 100+ students using Canvas LMS.

Projects

Your Disney Movie Dataset | Python, Goggle Colab, BeautifulSoup

May 2022

- Utilized web scraping to extract Wikipedia's Infobox contents from 600+ Disney movies using the bs4 library.
- Cleaned and filtered data to create a final dataset which houses 520 Disney movies and generated GET requests to attach IMDB/Rotten Tomatoes ratings using OMDb API.

Traffic Signs Classification and Recognition | Python, Keras, Tensorflow

August 2021 - December 2021

- Trained a deep neural network that can classify traffic signs from the GTSRB dataset having 50,000 images.
- Classified images into 43 relevant classes using a LeNet CNN model with a training accuracy of 98 % .
- Created a simple GUI using Tkinter that predicts the class of traffic sign based on a user image.

Pokédex | Javascript, Rest API

March 2021

- Deployed a light-weight web application on *Netlify* and improved User Interface using style sheets.
- Generated GET requests and filtered JSON strings to create a catalog of 897 Pokémon based on their ID and attributes using PokéAPI .

Operating Systems | C/C++

August 2020 - December 2020

- Implemented a user space shell application capable of reading, traversing, and interpreting a FAT32 file system image.
- Created a program with custom implementation of malloc and free functions to perform heap management using 4 different page replacement algorithms.
- Designed a UNIX bash shell to support user commands and added ability to store historical commands and process IDs.
- Installed a new Linux kernel image and modified it to support 3 new system calls and display statistics of a process ID.

Poker++ | C++, gtkmm

January 2020 - May 2020

- Developed a multi-player (2-5) gtkmm Texas Hold 'em poker game using low-level I/O programming.
- Integrated a client-server architecture model for the dealer and client(s) using the Boost ASIO library and encoded communication on a JSON interface.

Awards and Achievements

Engineering: College of Engineering, Dean's List all semesters

Academic: *Magna Cum Laude*, Maverick Academic Scholarship

Affiliations: IEEE, Microsoft Innovation Center Nepal