

# APAR POKHREL

Grand Prairie, Texas

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

## Education

### The University of Texas at Arlington

May 2022

*Bachelor of Science in Computer Science*

CGPA: 3.81/4.0

*Minor in Mathematics*

## Technical Skills

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

**Tools:** VS Code, GitHub, Git, L<sup>A</sup>T<sub>E</sub>X, Google Colab, Jupyter, Eclipse, Arduino, gcc/gdb

**Technologies/Frameworks:** Windows, Linux, MacOS, ReactJS, NodeJS, TensorFlow, Keras, NumPy, 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 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 UI for the robot that utilizes a HTTP server/client for mechanical controls and wireless video streaming, and integrated Axios API to send HTTP messages for serial communication.

### 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, documented student progress 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 for the image classifier to allow users to upload an image and predict the class and traffic sign.

### 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 interpreting a FAT32 file system image based on FAT32 File System Specification without the use of any existing kernel code or utility functions.
- Designed a program with self-implemented data structures for dynamic memory allocation functions capable of performing heap management using 4 page replacement algorithms.
- Designed a bash shell for UNIX using low level system calls to create and manage processes supporting user commands.
- Modified a CentOS Linux kernel to support new system calls with added functionality of process metrics.

### 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:** *Summa Cum Laude*, Maverick Academic Scholarship

**Affiliations:** IEEE Student