Tenzin L. Choerab

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Education

Georgia Institute of Technology | Atlanta, GA *August 2020 – December 2023*
Bachelor of Science in Computer Science Dean's List, Zell Miller Scholarship
Concentration: Intelligence and Information Internetworks

Experience

Georgia Tech Research Institute (Automated Agriculture) *August 2021 – October 2022*
Undergraduate Researcher Atlanta, Georgia

- Used Lidar scan data of peach trees to reconstruct them in open3D with the intention of automating pruning.
- Took 3D scans and pruned them using Open3D for feature detection based on Euclidean geometry.
- Built GUI with Pyqt5 to allow for horticulturalists to test our algorithms versus their knowledge of pruning.
- Used pix2pix in order to automatically complete tree pruning with pruned and unpruned data.

GT ISYE Center for Predictive Analytics *May 2021 – August 2021*
Undergraduate Researcher Atlanta, Georgia

- Worked under Dr.Mukherjee conducting simulations for data center optimization.

Emory University *May 2019 – August 2019*
IT Intern Atlanta, Georgia

- Implemented QR automation for new inventory tracking system, decreasing time to log new items by ~98%.
- Performed troubleshooting and first-time setup for faculty and staff as well as networking.
- Maintained Double Robot Telepresence Deployment System for offsite professors.

Projects

GT Discovery | NodeJS, ReactJS, SQL

- Built website that allows users to create accounts in order to host and attend events on campus. Also made search and filter functionality for events with a map from Google API allowing user to locate events. Front end made using material UI with a NodeJS backend and SQL database storing user and event information

IT Ticketing System | SpringBoot, React Native, SQL

- Created a modular IT dashboard system that allows for simple automated inputs. The main aspect being automating department selection and ticket distribution depending on department and availability of technicians. Decreasing necessary cataloging for items by 75%.

Taiwanese Bankruptcy Prediction | Python

- Cleaned a variety of Taiwanese Company data from Kaggle then evaluated it using a gradient boosted tree in order to predict bankruptcy with 97% accuracy.

Chess AI | JavaScript

- Used Chess.js to simulate all future board paths with an evaluation function to compute next moves value. Then searched following moves value with min max tree. Finally used Alpha-Beta pruning to optimize the algorithm.

Social Media Clone | MongoDB, Express, React, NodeJS

- Created a basic social media app with the ability to create an account and follow other users as well as post and see followed users posts on their feed.

Awards (I.A.)

Robotech Hackathon 2022, GT IEEE – 1st Place (Software Track)

- Created algorithm to predict tree growth patterns in order to optimize farming space.

Skills

Technical Languages: Java, Python, C, C++, C#, R, JavaScript, MATLAB, Go, SQL, CSS/HTML, ReactJS
Technologies: Docker, Django, Postgres, MongoDB, OpenCV, GitHub, MySQL, .NET

Relevant Coursework

Data Structures and Algorithms, Design and Analysis of Algorithms, Computer Organization and Programming(C), Intro to Artificial Intelligence, Machine Learning, Information Security, Computer Vision, Object Oriented Design, Systems and Networks, User Interface Design, Data Analysis and Manipulation, Database Systems, Mathematical Statistics