

Hardik Poudel

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Education

Bachelor of Science in Computer Science | Minor in Mathematics

Graduation Date – Dec 2021

Edward E. Whitacre Jr. College of Engineering

3.96 GPA

Texas Tech University, Lubbock, TX

Relevant Courses: Data structure, Object-Oriented Programming, Design and Analysis of Algorithms, Concepts of Programming language, Assembly Language, Computer Architecture, Machine Learning, Human-Computer Interface.

Work Experience

Tutor

Texas Tech University, Lubbock, Texas

Aug 2020 – Present

- Assisted students in assignments and projects in Computer Science and Mathematics subjects such as Programming, Data structures, Object-Oriented Programming, Assembly Language and Differential Equations.
- Guided struggling students in programming by teaching them the adequate ways to study Computer Science and write codes efficiently.
- Tutored with simple and real-world examples to teach complex topics of Data structures and Object-Oriented Programming to the students.

Projects

Shopping System

- Implemented object-oriented programming and advanced data structures to create a shopping system using Java.
- Collaborated with a team of 4 members each contributing in Frontend, Backend, and Database management.
- Used various software development tools such as Git, Firebase database and JavaFX Scenebuilder.
- Was able to complete the project within 2 weeks with no errors.

Game of Life Simulation using Multiprocessing

- Built a game of life simulation using multiprocessing by implementing functional programming in Python.
- Used high computing power from Quanah a High-Performance Computing Center (HPCC) cluster at Texas tech.
- Automated testing tasks in Quanah using shell scripts for Linux.

Particle Tracking

- Contributed to the research of Pilot wave theory by building a full-stack application in MATLAB to track the particles (tiny water bubbles) from a video.
- Located and extracted the information of the particles in each frame from the video and combined the information from each frame to trace the moving path of the particle and recorded their properties.
- Implemented efficient algorithms and advanced programming techniques of image processing to extract the information of each particle from each frame from an entire video.
- Program is still being used for the research and is maintained frequently.

Video Chat application

- Developed a full-stack React Native video chat application that can be used to communicate between multiple users.
- Built server using express and socket.io to create client and server connection between users.
- Used WebRTC for peer-to-peer connection for high quality video transmission.

Skills

Programming Languages:

Python (#####), C/C++ (#####), Java (####--), C# (##---), JavaScript (####--), MATLAB (#####), bash (####--), shell (####--), HTML (#####)

Tools:

React.js, React Native, Git

Involvement

Association of Computer Machinery at Texas Tech

- Gained experience working in software development using C# in a scrum environment.
- Collaborated with a team of 9 members to build a component of a note sharing application.
- Conducted several brown bag meetings every 1 or 2 weeks for updates.
- Performed parallel programming with senior engineers while writing codes for the application.
- Used multiple software development utilities such as Git, Azure Cosmos DB, and Azure Stack for the development.

TTU First-Generation College Student Mentor Program

- Mentored first-generation college students at Texas Tech University majoring in Computer Science.
- Attended several meetings and activities to socialize with the new members and learn about the student life at the university.

Nepalese Student Association at Texas Tech

- Guided incoming freshmen from Nepal and transfer students at Texas Tech University to succeed at the university and live in Lubbock.
- Attended several meetings and activities to socialize with the new members and celebrate festivals.

Affiliations

Nepalese Student Association at Texas tech, Member	Aug 2019 – Present
TTU First-Generation College Student Mentor Program	Aug 2019 – Present
Association for Computer Machinery, Member	Aug 2019 – Present
Phi Theta Kappa, Member	Jan 2018 – Present
National Collegiate Scholars Society, Member	Jan 2018 – Present

Awards

Proven Achievers Award recipient: \$13,000
CPCEED Engineering Scholarship (2020-2021)
Dean's List (2017-2019)
President's List (2020)

Hobbies/Interests

Drones, Photography, and new technologies.