Dhanush Kumar Selvaraj Kumar

Education

University of Houston

Bachelor of Science in Computer Science, Minor in Mathematics

Experience

Scholar Enrichment Program

January 2024 - Present

Expected: May 2026

Data Structures Workshop Facilitator

Houston, Texas

GPA: 4.00

- Led a workshop of 30+ students by reiterating Data Structures concepts through interactive sessions, resulting in a 20% improvement in assessment scores.
- Prepared comprehensive materials twice a week, including slides and mock exams, to enhance student learning, resulting in a 90% satisfaction rate in student feedback.
- Contributed to the "Reflect-Interact-Create" ChatGPT-oriented teaching model to deepen student understanding of complex concepts using AI, leading to a 25% increase in student engagement.

Knack January 2023 – Present

Tutor

Houston, Texas

- Conducted individual and group tutoring sessions for Calculus 1, Calculus 2, Python, and C++, using tailored teaching methods to address diverse learning needs, resulting in a 40% improvement in student grades and a 95% satisfaction rate.
- Ranked as one of the top five tutors on the Knack platform in 2023 by consistently delivering high-quality tutoring sessions, leading to receiving the Tutor of the Month award in July 2023.
- Tutored 40 students for nearly 600 hours, providing personalized instruction and support, resulting in a consistent 5-star feedback rating.

Projects

Wonderland Theme Park | HTML, CSS, Javascript, React, SQL, Vite, Vercel

April 2024

- Developed user authentication system and designed user views to ensure secure access and seamless navigation within the theme park management system.
- Integrated frontend with backend systems to enable efficient data entry and management, including the creation of data entry forms.
- Developed analytics reporting to measure the park performance on ticket sales, revenue, and rides.
- Implemented automated triggers for targeted promotions, enhancing revenue generation, resulting in a 25% increase in sales and customer engagement.

Tamagotchi Virtual Pet Game $\mid C++$

April 2023

- Designed the core gameplay mechanics, including pet creation, feeding, grooming, and health monitoring, utilizing object-oriented programming (OOP) principles.
- Implemented a time-based system to simulate real-time pet care, creating a realistic and engaging user experience.
- Utilized file I/O streams to save and load pet data, enabling players to continue pet's progress across multiple sessions.

Shopping ChatBot | Python, Rasa

June 2022

- Provided an easy, smart and comfortable phone shopping experience for e-commerce users through an AI based chatbot.
- Developed an interactive shopping chatbot using Rasa with knowledge base that consisted of phone name, RAM size and camera megapixel.
- Deployed through command line interface.

Certifications

Scientific Computing with Python HPE	July 2024
Principles of Data Management HPE	July 2024
Intro to Machine Learning HPE	July 2024
Data Analysis with Python IBM	July 2024
Azure AI Fundamentals Microsoft	June 2024
Python for Data Science IBM	June 2024

Technical Skills

Languages: Python, C/C++, JavaScript, HTML, CSS, R, SQL **Tools**: Azure, Git, Shell, Docker, Postman, MS Access, Vercel

Frameworks/Libraries: React.js, Vite, PyTorch, Pandas, NumPy, Sk-learn, Matplotlib, Node.js