# ROHITH VISHWAJITH

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#### **EDUCATION**

### The University of Texas at Austin

August 2021 - May 2025

Bachelor of Science in Computer Science (Expected Graduation: May 2025)

- Relevant Coursework: Data Structures, Algorithms, Computer Architecture, Artificial Intelligence Design, Graphics, Networking,
  Operating Systems, Linear Algebra & Matrices, Statistics
- Organizations: UT Computer Science Research, Electronic Game Development Society (EGaDS)

#### WORK EXPERIENCE

#### Scale AI

Technical Skill Assessor & AI Model Trainer

November 2023 - Present

- Conducted 200+ technical screening interviews for candidates using C++, Java, JavaScript, Python, & Swift.
- Detected and helped fix multi-turn deviations during conversations with generative AI models.
- Helped develop text-based generative datasets with response rating and reviewing systems as part of the Platinum Coder team.

### The University of Texas Austin Research

May 2023 - December 2023

Independent Undergraduate Researcher & Designer for High-speed Custom Multiplayer Networking Systems

Project Repository: <a href="mailto:github.com/rvishwajith/cs370-research">github.com/rvishwajith/cs370-research</a>

- Designed a 2-way 64-tick UDP server in with sub-15 ms latency and sub-0.5% packet loss across networks using Unity and C#.
- Implemented TCP sockets with sub-70 ms of latency and 0% packet loss, allowing for real-time voice and text chat.
- Built a certificate system to support HTTPs connections, allowing authentication and real-time data relay from webpages.
- Used multi-threaded mapping to poll on all ports, allowing servers to simulate and relay PhysX data for 200+ clients in 1 scene.
- Built an email (SMTP) based 2FA system using the NET Mail API to improve account security and prevent bot registration.

#### PROGRAMMING PROJECTS

Descent May 2023 - August 2023

An Underwater Exploration Game with AI Ecosystems made using Unity, C#, & HLSL

Project Repository: github.com/rvishwajith/descent

- Built an AI flocking system with real-time clusters, seeking, & avoidance to simulate fish schools by modifying the Boids algorithm.
- Designed a custom-built octree allocation system to improve efficiency of AI flocking from O(N2) to O(N log8N2).
- Utilized mesh instancing & vertex shading to animate 600+ entities in 1 draw call (reduction of ~99%, speed increase of 20 500%).
- Created a custom spline-based vertex deformation algorithm for dynamic animation of all large creatures.
- Implemented a custom tilt-based input system for mobile devices using the gyroscope.

Birdbrain September 2023 - October 2023

Trained Sentiment Analysis on Tweets using Python, PyTorch, NLP

Project Repository: github.com/rvishwajith/birdbrain

- Used Pandas and NumPy to validate and pre-process a large dataset of tweets and sentiment data for NLP model training.
- Trained a PyTorch language processing model to conduct sentiment analysis on large datasets of tweets for a given hashtag.

### **SKILLS**

# **Programming Languages**

- C# (Unity, .NET), Java / Kotlin, Python, Swift, Javascript, HTML & CSS, C / C++, Dart
- HLSL/GLSL (including Unity Shader Graph), Metal (MetalKit / SceneKit)

# **Tools & Libraries**

- Web / App Development: React / React Native, SwiftUI / UIKit, Bootstrap, Xcode, Android Studio, QT, Docker, Node.JS, JSX
- Game Engines / Graphics: Unity, Three.JS / Babylon, Unreal, ARKit / SceneKit / RealityKit / MetalKit
- Networking / Databases: AWS (Amplify/Lambda), MongoDB, Firebase, Sockets, JSON, RESTful APIs
- UI Design / 3D Modeling: Blender, AutoCAD, Figma, Sketch
- Machine Learning / Data Analysis: PyTorch / NLTK, Tensorflow, Pandas / NumPy, Google Cloud Vision API
- General Skills: GitHub, SDLC, Word, Excel, PowerPoint, Bash / Shell, macOS / Linux / Windows

#### **LEADERSHIP**

Kids Love Coding August 2019 - May 2021

Lead Java Tutor & Website Developer

- Collaboratively developed an introductory/intermediate Java curriculum for students aged 10 14.
- Designed a responsive website & built an HTML/CSS template for team members to add site pages.