Richard Raad

US Citizen | Natick, MA | (508)-808-9053 | richardtraad@vt.edu | github.com/Richard-Raad
linkedin.com/in/richardtraad/ | richard-raad-portfolio.netlify.app

Objective

Computer Science Honors student at Virginia Tech with experience in both academic research and applied software development. Passionate about systems-level problem solving and machine learning applications, seeking a role that leverages both theoretical rigor and practical coding expertise.

Education

Virginia Tech – College of Engineering, Honors College (GPA: 3.97/4.00) **Blacksburg, VA**
Candidate for B.S. in Computer Science and a Minor in Business August 2023 – May 2027

- **Related Coursework:** Software Design & Data Structures, Intro to Computer Organization, Intro to Combinatorics and Graph Theory, Intro to Problem Solving in CS, Foundations of Engineering (1 & 2)
- **Honors:** Dean's List with Distinction (Sem 1), President's List (Sem 2), President's List (Sem 3)
- **Rankings (Freshman Year):** Ranked 10/213 in Major, 30/1,390 in College of Engineering, 162/5,040 University-wide

Skills/Certifications(Years)

- **Languages:** Java(3), Python(2), C#(1), HTML(1), CSS(1), JavaScript(1), C(2)
- **Tools/Frameworks:** Git(3), React.js(1), Node.js(1), Unity Game Engine(2), srsRAN(1), Open5GS(1), GNU Radio(1)
- **Concepts:** Networking, OOP, Data Structures, Mobility Protocols, Game Design
- **Certifications:** Scientific Computing With Python (freeCodeCamp)

Experience

CS Undergraduate Teaching Assistant – Software & Data Structures **Blacksburg, VA**
CS 2114 January 2025 – Present

- Supported 30+ students in mastering Java fundamentals via weekly lab sessions. Led redesign of lab and quiz content, improving alignment with learning goals and increasing student clarity based on instructor feedback.

Undergraduate Network Architecture Research **Blacksburg, VA**
SPIN Labs VT June 2025 – Present

- Configured and operated a local LTE network using srsRAN and Open5GS with ZMQ-based virtual radios. Developed mobility experiments using GNU Radio Companion to test handover behavior. Currently building EnCoR-based QUIC mobility testbed to collect performance data for upcoming research publication.

2D Planet Defense Game (C#, Unity Game Engine, Aseprite) **May 2022**

- Designed and programmed a 2D planetary defense game in Unity using custom sprite animation and collision mechanics. Focused on engaging orbital control mechanics and performance-optimized scripts.

3D Hand Evasion Game (C#, Unity Game Engine, Maya) **October 2021**

- Constructed a 3D game utilizing custom made 3D objects and game scripts. The game is an obstacle course of avoiding enemy arms while collecting coins for a high-score.

Activities

VTHacks 12 Hackathon (JavaScript, HTML, CSS, React.js, Node.js, GPT-4 API) **Sep 2024**

- Collaborated in a team of 4 working through 2 days and nights to construct a react app implementing GPT-4 API to represent a realtor client interaction and practice finding houses as a realtor

Interests

- Machine Learning, App Design, Fitness Technology, Game Design (2D + 3D), Triathlons (IRONMAN), Weightlifting, Reading (Science Fiction), Health/Nutrition, Animals (Dogs)