

Jerry Gu

Richmond, Virginia • jerrysonggu@gmail.com • www.jerry-gu.com

Experience

BNSF RAILWAY

Software Engineering Trainee (L3)

Richmond, Virginia

July 2025 – Present

- Migrated a synchronous HTTP image inference pipeline to a scalable, queue-based Azure ML architecture, increasing image processing throughput by over 10x
- Engineered synthetic defect image creation pipeline, eliminating reliance on external vendors
- Developed and iteratively refined a 3D interactive train part visualization prototype to support immersive visualization and inspection repair, in Unity

COFUND

Junior Mobile App Developer Intern

Richmond, Virginia

June – August 2024

- Operated with high autonomy to drive frontend feature development, translating loose design requirements into production-ready user interfaces
- Built and shipped UI components for a cross-platform finance app using React Native and JavaScript

UDIG

Software Consultant Intern

Richmond, Virginia

June – August 2023

- Built an end-to-end full-stack solution with TypeScript-based frontend and a GraphQL API
- Designed UI, collaborating with in-house UI/UX designer and incorporating feedback from clients

Education

UNIVERSITY OF VIRGINIA

Bachelor of Science in Computer Science, GPA: 3.86

Semester Abroad: Seoul National University — Seoul, South Korea

Charlottesville, Virginia

August 2021 – May 2025

Projects

ALL OR NOTHING

- Developing 2D fighting game in GO-based game engine, implementing character movesets, hitboxes, and state-based combat systems as main project programmer
- Ported and expanding a game jam prototype in smaller engine into full-featured fighting game

JACK IN THE BOX

- Crafted a rage platformer in Unity (C#) as a final project for Game Design (CS 4730)
- Produced a design document and iterative prototypes to refine gameplay systems across semester
- Programmed and designed levels alongside player movement mechanics

MACHINE LEARNING FOR VIRGINIA

- Trained and developed an XGBoost model to predict standardized test scores based on socioeconomic factors, achieving a 0.7683 R^2 score, demonstrating the model's effectiveness in capturing variance
- Secured third place in the "ML4VA" competition, recognizing innovative approach and presentation

Key Skills

Languages: C, C#, Python, Java, JavaScript, TypeScript, Lua, GDScript

Game Engines: Unity, Godot, PICO-8, IKEMEN/MUGEN

Tools & Skills: Git, AzureML, Microsoft Office (Word, Excel, PowerPoint), Agile, Scrum

Skills & Interests

KENDO - Practitioner of Japanese fencing martial art, member of the Southeast US Kendo Federation team

VOICEACTING - Freelance voice actor, narrator for BUSHIDO Kendo Documentary YouTube channel

YOUTUBE - Scripted and edited videos on game design topics, garnering over 150,000 lifetime views