

Jacob Yuill

jtyuill@proton.me | github.com/jtyuill | (615) 524-0119

Education

University of Tennessee—Knoxville – B.S. in Computer Science; Minor in Statistics

Expected May 2027

GPA: 3.65

Relevant Coursework: Data Structures & Algorithms, Computer Organization, Systems Programming, Discrete Mathematics, Statistics and Probability for Engineers, Regression Modeling

Skills & Certifications

Programming: C++, C, Python, Java, JavaScript, Bash

Networking & Servers: Linux, Nix, Docker, WireGuard, Tailscale, Synology NAS, Kubernetes

Software: R Studio, Git, Godot, Adobe Photoshop, Adobe Premiere Pro, Blender, VirtualBox

Certifications: CompTIA Linux+

Experience

Intern, Aubot – Melbourne, Australia (Remote)

May 2026 – September 2026

- Developing a comprehensive computer science curriculum by translating complex Python and Java concepts into engaging, real-world programming exercises for students nationwide
- Engineering a virtual educational platform and automated scripts to facilitate interactive learning in Algorithms, Artificial Intelligence, and computational thinking
- Collaborating within an Agile team to draft technical specifications and deliver high-energy software solutions focused on healthcare, society, and environmental applications

Projects

Online Card Game Hub

github.com/jtyuill/jacob.place

- Implemented a complete Skip-Bo card game engine automatic deck recycling via Fisher-Yates shuffle
- Crafted a polished card game UI with Framer Motion animations including flying card transitions, fan-style hand displays with transform rotations, and opponent move detection via state-diffing algorithms
- Configured automated deployment to Railway with sequential mono-repo builds, environment-based configuration, health check endpoints, and static file serving with client-side routing fallback
- Structured the project as an npm workspaces mono-repo with three packages (client, server, shared), enabling incremental TypeScript compilation and a streamlined concurrent development workflow

3D Snake Battle Royale Game

github.com/jtyuill/snakez

- Engineered a 3D reimaging of classic Snake gameplay using Godot Engine 4.4, implementing real-time 3D graphics with custom mesh rendering and environmental lighting systems
- Designed and implemented a Fortnite—inspired "storm" mechanic that progressively shrinks the playable area, adding strategic depth and time pressure to traditional Snake gameplay
- Implemented procedural food spawning system with randomized positioning within defined boundaries
- Programmed dynamic collision detection systems with optimized segment-based collision ignoring

Language Learning Flashcard Helper

github.com/jtyuill/minebuddy

- Created helper for language learners to assist Anki flashcard creation from target language media
- Developed a GTK3 system tray application with dynamic deck selection via radio menu items
- Integrated with AnkiConnect HTTP API to automate flashcard creation and media attachments
- Architected a service-oriented Python application with clear separation between client, service, and CLI layers
- Implemented base64 media encoding for seamless image and audio file storage in Anki