

Robert "Tye" Riley

Software Engineer | Game Developer



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Tye

RELEVANT SKILLS

Unity Game Engine

C | C++ | C#

ExpressJS | PHP | Mongoose

ReactJS | NextJS | Vue

Xamarin

HTML5 | CSS3 | JavaScript

Bash | Shell

Linux | Windows | Mac

Docker | Git

Python | Anaconda | R

MySQL | NoSQL

Java | Swift

Ruby | Ruby on Rails

- Proficient with Microsoft Office and Adobe Creative Suite
- Certified Associate in Mechanical Design (SolidWorks)

WORK EXPERIENCE

UCF WEAR Lab | Orlando, FL

November 2020–December 2022

Lead Software Engineer

- Led teams of three junior developers for two projects undertaking the mobile application development process while communicating with corresponding multidisciplinary teams.
- Engineered Unity Game Engine infrastructure by providing skeleton classes for instance-based objects. Then attached those instance-based objects to real-time objects.
- Communicated with hardware co-teams to illustrate the data flow between the microcontrollers and software applications.
- Worked extensively with the NumPy library to perform tests on string vibrations using Fast Fourier Transform to gather data about the frequencies of a vibrating string on a cello.

Cox Media Group | St. Petersburg, FL

August 2017–July 2018

Promotional Specialist

- Organized equipment in the station vehicles and workplace to help orchestrate station attendance at events.
- Collaborated with coworkers and station talents by planning and executing event requisites by promoting the station for corresponding events.
- Documented company appearance at event via photographs and paper records with brief descriptions and summaries.

PROJECTS

Bitterblossom

Unity Game Engine

Developed and designed a video game from scratch. Composed original soundtrack with FL Studio. Created special AI behaviors for idle, attacking and seeking states. Wrote original story components. Generated a unique 3D world for the AI and character to interact in. Animated special attacks and interactions based on player controller inputs.

Discord and Dragons

TypeScript | DiscordJS

Created asynchronous non-singleton software architecture from scratch using classes, states, and events. Built a custom rendering method for Discord embeds to refresh player UI using a timer system.

5 More Minutes

Lua | Playdate SDK

Developed a retro-arcade game with a small, experienced developer team. Implemented frame timers and animations for sprite assets and transition logic to control flow of the game controller.

Mechatronic Musical Instrument: Performance Feedback (MMIPF)

Unity Game Engine

Implemented FFT and Bluetooth communication on a microcontroller to register frequencies given by a mechanical cello. Handled Bluetooth events to display, calculate, and emit sound given from the microcontroller built on Unity.

EDUCATION

University of Central Florida | Orlando, FL

December 2022

Bachelor of Science in Computer Science, BS

GPA: 3.762

- T-L.E.A.R.N. alumni of the 2020 cohort
- S.U.R.F. scholar of the 2021 cohort

- Presenter at the Student Scholar Symposium
- Dean's List (x1); President's Honor Roll (x3)

State College of Florida, Manatee-Sarasota | Bradenton, FL

May 2020

Associate in Arts, AA

GPA: 3.7

- Dean's List (x2)

NOTABLE ACHIEVEMENTS

- Presented at the Senior Design Showcase UCF where the top 5% of students showcase their senior design projects.
- Placed top 3 for best research poster in T-L.E.A.R.N. cohort.

Additional recommendations and repositories provided upon request.