Robert “Tye” Riley

Software Engineer | Game Developer

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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—Present
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

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.

Hand Brain Chess React | Express
Routed API calls on a backend server to query, create, and update user data. Implemented WebSocket protocols through backend to update game states and emoji chat.

EDUCATION

University of Central Florida | Orlando, FL ~December 2022
Bachelor of Science in Computer Science, BS GPA: 3.769

- 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

- Placed top 10 in Technology Student Association for Architecture Design, Fashion Design and Technology, and Music Production.
- Placed top 3 for best research poster in T-L.E.A.R.N. cohort.

Additional repositories provided upon request.