Robert “Tye” Riley

Software Engineer

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RELEVANT SKILLS

ReactJS | NextJS | Vue | ExpressJS | PHP | Mongoose | Linux | Windows | Mac | C | C++ | C# | Xamarin | HTML5 | CSS3 | JavaScript | Bash | Shell | Unity Game Engine | 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

EMURR TypeScript | NextJS
Developed a WYSIWYG editor website designed to create websites for embedded systems. Developed scripts to setup websites to be hosted on the embedded systems local network. Attended weekly sprints and biweekly sponsor meetings. Communicated and documented project requirements and pipelines.

Traveling Salesman Problem -- Approximation Python
Conceptualized ideas from theory to algorithm to find the shortest Hamiltonian cycle in a complete graph. Evaluated theory by drawing out diagrams and writing out rules. Wrote, tested, and documented the algorithm in Python based on the theory.

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.