Andrew R. Burrell

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Education

University of Michigan   **Ann Arbor, MI**
Bachelor of Science in Computer Science   *December 2018*
Bachelor of Science in Mechanical Engineering

Coursework: Computer Game Design and Development – Object-Oriented and Advanced Programming – Introduction to Operating Systems – Electrical Circuits, Systems, and Applications – User Interface Development

Work Experience

Arriver   **Novi, MI**
UI/UX Software Developer   *April 2019 – Present*
- Leading the development of an in-vehicle touchscreen application for testing, monitoring, and demoing autonomous vehicle software using Unity (C#) and Qt (C++).
- Contribute actively to designing the HMI, bridging the gap between UX designers and the core software teams.
- Drive improvements to our codebase's quality by leading major refactoring efforts, adding unit test frameworks to legacy code, and developing CI/CD pipelines.
- Integrated HMI into a full driving simulator at OSU, used to conduct experiments testing the effectiveness of our driver engagement strategies.

Cuppa Games   **Oak Park, MI**
Co-founder, Game Developer   *July 2020 – Present*
- Designing and programming a networked multiplayer roguelike with an emphasis on cooperation using Unity.
- Developed a prototype, and conducted and analyzed several playtests. Currently developing a full vertical slice.

Kyungeki Workshop   **Remote**
Game Developer   *August 2017 – January 2019*
- Collaborated with crowdfunded artists and developers to make video games using Ren'Py and Unity.
- Programmed core gameplay mechanics, animation libraries for Ren'Py, and custom editor tools in Unity.
- Provided monthly builds to the employer and encourage very open lines of communication to ensure everyone involved was happy and well informed with the direction of the project.

Inter-university Consortium for Political and Social Research (ICPSR)   **Ann Arbor, MI**
Software Development Intern – R&D   *June 2018 – September 2018*
- Independently developed a React Native mobile app that let faculty login to their systems by scanning a QR code.
- Created a fully working prototype, which utilized WebSockets and their existing ActiveMQ server.

Project Experience

Autonomous Go-Kart Project   **Ann Arbor, MI**
Mapping and Software Engineer   *January 2018 – April 2018*
- Built a prototype for a fully autonomous electric go-kart with a multidisciplinary group of student engineers.
- Refined the mapping and object detection algorithms using Python to be more robust when handling real LiDAR data.
- Presented the kart autonomously navigating through a curved track during the Michigan Engineering Design Expo.

"Tentacle Turmoil" Video Game Project   **Ann Arbor, MI**
Student Game Developer   *January 2017 – April 2017*
- Developed a co-op game in Unity where each player controls a single tentacle of a giant, clumsy sea monster.
- Analyzed feedback and continuously iterated the game's mechanics to make an exciting, fun experience with friends.
- Awarded 3rd place of 20+ projects at the Student Video Game Showcase.

Skills

Programming: C#, C++, C, Python, JavaScript, HTML/CSS
Software / Other: Unity, Qt, React, Ren'Py, Git, Agile