**Isaac J. Spanier**

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**Objective**

To obtain a full-time software development position in the St. Louis area.

**Education**

**Iowa State University**  Graduated**: May 2020**

Bachelor of Science – Computer Engineering **GPA: 3.28**

**Relevant Work Experience**

**Software Development Intern – Buildertrend May 2019 – Aug 2019**

* Developed market ready software, focusing on improving and converting old webpages into React.
* Integrated my changes with full time employees and oversaw weekly code reviews of others on my team.
* Quickly learned and utilized React, TypeScript, SQL, Entity Framework, and Agile style standups.
* Competed in companywide Hackathon and won the people’s choice for the event.

**IT Solution Center Tier 3 Staff – Iowa State University May 2018 – Jan 2019**

* Resolved software and hardware problems and concerns for faculty and students at the university.
* Flexible in learning new systems, software, and solutions to adapt to situation-based needs.
* Specialized in functionality of certain systems including VDI, and VPN to be a reference for colleagues.

**Project Experience**

**Intelligent Code Editor – Senior Design, First Place Team Aug 2019 – May 2020**

* Created a machine learning application that converts natural language to Java code using an OpenNMT-py model.
* I developed sentence preprocessing scripts and led the configuration of the AWS servers to host our translation model and collaborated with my team to create a cohesive dataset to train our model with.
* Awarded first place overall out of 58 senior design teams.

**Raspberry Pi Game Console – Lead Backend Developer Aug 2019 – Dec 2019**

* Developed a gaming console from the ground up, implementing online real time multiplayer capabilities.
* Organized the database, managed all the http and web socket connections, and helped establish communication between the C# frontend and the Java SpringBoot server backend.

**Winged Velociraptors – Personal Project Jan 2020 – May 2020**

* A mobile JavaScript project that myself and my colleague created as a fun side project. The game uses React.js frontend and a Node.js backend to handle audio commands given to players and all game logic.
* The game is modeled after One Night Werewolf however is designed to be played directly on player’s phones.

**Cardinal Space Mining – Controls Team Aug 2018 – May 2019**

* Modeled and designed microcontrollers for the space mining robot that competed at University of Alabama.
* Wrote the controls portion for the project’s technical report to be evaluated according to NASA’s requirements.

**Embedded Systems Rover – Sensors Lead Apr 2018 – May 2018**

* Retrieved data from embedded infrared, sonar, and bump sensors for a Roomba. Rover was implemented to navigate a maze of obstacles and reach a marked goal based solely on sensor data displayed on the GUI.

**Hack ISU Hackathon Competitor Oct 2016, Oct 2017, Oct 2019**

* Worked in teams of 4 or less to construct an idea, implement, and present our project in a 36-hour period.
* Created a Multiplayer Tetris game for up to four players, created an Alexa skill escape room based in Java, and created a basic webpage as a freshman to display potential equivalent college courses in the state of Iowa.

**Leadership**

Iowa State Billiards President **Aug 2019 – May 2020**

Iowa Statesmen Choir President **Aug 2019 – May 2020**

Eagle Scout Rank **May 2016**

**Skills**

**Languages:** Java, Python, React.js, Node.js, C, C#, C++, HTML, CSS, JavaScript, TypeScript, Verilog, Assembly, MySQL

**Other:** Agile Process, AWS, Git, Linux, MacOS, Windows, Visual Studio, Visual Studio Code, Eclipse, IntelliJ, GitLab, Bitbucket