

Eli Bass

ekbass44@gmail.com ❖ (571) 383-1022 ❖ Oakton, VA

<https://www.elikeith.dev/> ❖ <https://github.com/EliKeith404/> ❖ <https://www.linkedin.com/in/EliKeith404/>

WORK EXPERIENCE

Bond's Escape Room

Software Engineer

Fairfax, VA

June 2022 - Present

- Built responsive web applications using HTML, CSS, and JavaScript/Typescript.
- Created scalable, responsive, and reusable components using React and Next.js.
- Developed and utilized REST APIs using Node.js, Express.js, MongoDB, and MVC architecture.
- Updated internal KPI software to increase performance and reliability using React and PostgreSQL.
- Designed the NoSQL data structure of a React application for online team building events.
- Collaborated with other engineers in the design, development, testing, and deployment of applications utilizing agile methodology.
- *Key Projects*
 - **KPI App** - Sale data is imported through Bookeo's Webhooks and interpreted through an API to track and calculate promotion usage, product popularity, and employee performance.
 - Tools - React + Remix, Typescript, TailwindCSS, Prisma, PostgreSQL, Webhooks
 - **Global Domination** - An online team building app where users can join a game lobby through a unique code, join a team, and compete with others. The game is played realtime through webhooks and supports up to 50 participants per game room.
 - Tools - React, Javascript, HTML, CSS, Firebase Authentication, Firebase Realtime DB

Electronics Engineer

July 2017 - Present

- Led engineering team during company expansion and built 3 escape rooms in a month's time, exceeding expectations and allowing for additional QA before the grand opening.
- Refactored previous software and hardware to more reliable, modern, and maintainable standards.
- Designed troubleshooting and wiring documents for non-technical staff.
- Utilized Arduinos to automate functions and create user-friendly modules within the escape rooms.
- Tested electronics under various conditions and recorded data to catch errors and ensure safety, reliability, and resilience.
- Designed and constructed unique and innovative escape rooms that meet customer expectations.
- Troubleshooting and repairing any technical issues that arose during the escape room experience.
- *Key Projects*
 - **Luther Jackson Middle School Puzzle Room** - This escape room is permanently installed in LJMS as an end-of-year activity for the students. The game is Marvel Comics themed, having

players collect gems from each school subject. The electronics are made to be easily repairable for teachers as the game will need touch-ups every so often from physical wear.

- Tools - Arduino, C++, RFID sensors, Reed switches, Soldering, Wiring, Drills
- **Carl Sandburg Middle School Puzzle Room** - This escape room is permanently installed in CSMS as a biyearly activity for students to participate in. The game has 2 variations which are toggled between by a switch and physical panels. The electronics are designed in a way where each puzzle station has one set sensor configuration, but when the game is toggled to the other variation, the physical interface of the puzzle changes and interacts with the same electronics.
 - Tools - Arduino, C++, RFID sensors, Reed switches, Soldering, Wiring, Drills

Software Application Developer

August 2016 - June 2022

- Developed windows apps built on C# .NET for 1000+ monthly players to interface with.
- Led projects through the entire application development life cycle.
- Maintained and updated escape room software as technology and customer expectations evolved.
- Developed a waiver application for the facility's Android tablets for customers to check-in with.
- *Key Projects*
 - **Escape Room Waiver** - Built for the Android tablets at the facility, the app takes customer information to validate their reservation and check-in. Their data is encrypted and stored in a database. To make it easy for returning customers to check-in again, a query is run once they finish entering their name and email which autofills the rest of their information.
 - Tools - Android Studio, Java, Bcrypt, PostgreSQL
 - **Asteroids** - A clone of the game Asteroids (1979) where 2 players control a ship's movement and weapons. The score they accumulate at the end is their code to escape.
 - Tools - Gamemaker Studio, GML, Aseprite
 - **Chemical Mixer Minigame** - A Windows Form application where players use chemicals they've gathered throughout the game to assemble a chemical formula. The system automatically detects and bundles molecules (eg. H₂O) and adds hyphens between elements to simplify the UX.
 - Tools - Visual Studio, C#

SKILLS & INTERESTS

Skills: HTML, CSS, Javascript and Typescript, React.js, Next.js, Node.js, Express.js, C#, MongoDB, MySQL, PostgreSQL, Firebase, Git, RESTful APIs, Content Management Systems, Web Accessibility, Soldering, Electrical Wiring, Arduino, Raspberry Pi

Interests: Data visualization; Discord bots; Smart homes, automation, and AI; Traveling; Game development; Disney Channel original movies; Escape rooms;