

Zachary A. Flegle

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EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY

Atlanta, Georgia

Bachelor of Science in Mechanical Engineering

August 2013 – May 2018

- Courses: Computing for Engineers & Computing Techniques

PROGRAMMING EXPERIENCE

TO DO TASK TRACKER (JavaScript, HTML, CSS, React JS, Firebase Authentication, Firebase Cloud Firestore)

Demo: <https://zflegle3.github.io/to-do-list/> | Code: <https://github.com/zflegle3/to-do-list>

- Developed a full-stack task management application that allows users to sign in using their google account, create new tasks or projects, visually display tasks by project, & update task details as the project is completed

ROCK PAPER SCISSORS CHALLENGE (React JS, SASS, JavaScript, GSAP)

Demo: <https://zflegle3.github.io/rock-paper-scissors-game/> | Code: <https://github.com/zflegle3/rock-paper-scissors-game>

- Built a responsive Rock Paper Scissors game application to match the challenge design files from Frontend Mentor
- Employed fully responsive layouts and animations to display gameplay information based on the device's screen size

WHERE'S WALDO GAME (JavaScript, HTML, CSS, React JS, Firebase Cloud Firestore)

Demo: <https://zflegle3.github.io/where-is-waldo/> | Code: <https://github.com/zflegle3/where-is-waldo>

- Created a full-stack photo tagging game application for users to play Where's Waldo and compare high scores
- Implemented a Firebase Cloud Firestore database to store gameplay data and user scores

LIVE WEATHER WIDGET (JavaScript, HTML, CSS, Npm, Webpack, OpenWeather API)

Demo: <https://zflegle3.github.io/weather-app/> | Code: <https://github.com/zflegle3/weather-app>

- Coded a single page web application using OpenWeather API to display the current weather at searched locations
- Provided interactive user controls to toggle between displayed units and alternate color themes

BATTLESHIP GAME VS. COMPUTER AI (JavaScript, HTML, CSS, Npm, Webpack, Jest)

Demo: <https://zflegle3.github.io/battleship/> | Code: <https://github.com/zflegle3/battleship>

- Constructed a single player Battleship game application to practice Test Driven Development (TDD) using Jest
- Programmed an AI opponent to simulate a human decision making for users to play against

TECHNICAL SKILLS

Frontend: JavaScript, HTML5, CSS3, React JS, Bootstrap, SASS, GSAP

Backend: NodeJs, MongoDB, Express, Firebase

Miscellaneous: Git, Github, Npm, Webpack, Jest, Figma

PROFESSIONAL EXPERIENCE

Proctor & Gamble

Cincinnati, Ohio

Associate Scientist – Feminine Care Nonwovens Global Material Developer

February 2021 – December 2021

- Served as the global material owner of premium feminine care pad topsheets by maintaining strong supplier relations, developing robust material specifications, and sharing research with project stakeholders to improve product superiority
- Lead the research, development, and implementation of 4 new nonwoven topsheet materials to provide \$2 million in net savings per year and mitigate supply chain risks caused by COVID 19
- Developed a fluid handling model with principal scientists to predict product performance and improve consumer comfort

Gulfstream Aerospace

Savannah, Georgia

G700 & New Programs Operations Engineer II

July 2018 – December 2020

- Functioned as the process owner for the aft section of two new startup aircraft programs to optimize aircraft production, improve design, and provide the highest quality product for Gulfstream customers
- Managed the implementation of a production conformity software which resolved over 300 discrepancies and ensured proper engineering configuration
- Supervised design reviews with cross functional teams to enhance the manufacturability of over 200 engineering models
- Identified discrepancies in the aft longitudinal splice design and collaborated with a cross functional team to redesign the structures resulting in an annual cost savings of \$126,000 per aircraft program per year

Co-Op Program Steering Team Member

July 2018 – December 2020

- Lead a weekly mentorship program to teach professional skills to engineering students and provide opportunities for them to implement the skills learned