

Zachary A. Flegle

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EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY

Bachelor of Science in Mechanical Engineering

Atlanta, Georgia

August 2013 – May 2018

- Relevant Courses: Computing for Engineers & Computing Techniques (Matlab)

PROGRAMMING EXPERIENCE

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

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

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

LIVE WEATHER APP (JavaScript, HTML, CSS, Npm, Webpack)

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

- Programmed a single page web application using OpenWeather API to display the current weather at a searched location

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

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

- Created 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, and update task details as the project is completed

BATTLESHIP GAME (JavaScript, HTML, CSS, Npm, Webpack, Jest)

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

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

FANTASY GOLF APP - In Progress (JavaScript, HTML, CSS, React, Firebase Authentication, Firebase Cloud Firestore)

Source Code: <https://github.com/zflegle3/fantasy-golf-app>

- Built a golf themed Sleeper.com clone, including email login, league customization, live messaging, and PGA leaderboards
- Developing a full-stack fantasy golf application including season long scoring, live league drafts, and roster updates

TECHNICAL SKILLS

Frontend: JavaScript, HTML5, CSS3, React.js, Bootstrap, SASS

Backend: NodeJs, MongoDB, Express, Firebase

Developer: Git, Github, Npm, Webpack, Jest

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
- Managed 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

- Served as the process owner for the aft section of two new startup aircraft programs to optimize aircraft production, improve design for manufacturing, and provide the highest quality product for Gulfstream customers
- Lead a team of engineers to implement a production conformity software which resolved over 300 discrepancies and ensured proper engineering configuration
- Supported aircraft production operations, developed new manufacturing plans, maintained product lifecycle management documentation, and implemented innovative manufacturing strategies to improve the fabrication of new aircraft programs
- Lead design reviews with cross functional teams to analyze and enhance the design and 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