

# DREW FOUT

## FULL STACK SOFTWARE ENGINEER

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### OBJECTIVE

Develop innovative software solutions, meeting industry demands that prioritize user experience, efficiency, and sustainability through a people-centered approach.

### SKILLS & COMPETENCES

**Computer Languages** • JavaScript • Python • HTML • CSS • PostgreSQL • SQL • TypeScript

**Frameworks & Libraries** • Rails • Flask • React • Redux • Express.js • Next.js • Bootstrap • Tailwind CSS • Bootstrap • Matplotlib • subprocess • Pandas • SimpleKml • Node.js

**Other Tools** • Google Maps API • AWS S3 • Docker • git • Github • Epic Software

**Design Tools** • Adobe Creative Suite • Adobe Illustrator • Adobe Photoshop • Canva • Figma

**General Skills** • Agile / SCRUM • Wireframing • UI/UX Design • Full-Stack Software Development • OOP • TDD • Editing • Writing • Google Suite • Microsoft Suite • Customer Service • Teaching

**Languages** • English - Native fluency • French (France) - C1 Professional fluency

### PROJECTS

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#### SmallApps

[Github](#) | [Live](#)

Google Maps API • JavaScript • DOM Manipulation • HTML • CSS

*SmallApps is a one page application for small projects I am creating to showcase technical skills. SmallApps relies on DOM manipulation through using only JS, HTML, and CSS.*

- Tacos Finder: Utilized Google Maps API Javascript and Places API(new) in order to allow users to receive restaurant data through Advanced Markers on the map after searching by city.

#### Museum Site

[Github](#) | [Live](#)

AWS S3 • Flask • Python • React.js • Redux • JavaScript • HTML • CSS • Tailwind CSS

*An application where users can interact with their local museum by becoming members, purchasing tickets and merchandise, and viewing exhibitions, events, and art. Developed solo over a two-week period. Continually maintained and updated.*

- Implemented custom user authentication utilizing BCrypt Hashing function on the backend and React Auth Routes on the frontend to prevent storage of plain text password.
- Constructed backend routes in Python with Flask to communicate seamlessly with React and Redux frontend and with a backend of PostgreSQL database using Alembic and SQLAlchemy.
- Administered RESTful API's leveraging asynchronous JavaScript using React.js and Redux state management to accomplish calls on a single page so users can have CRUD functionality on memberships, reviews, and ticket purchases.
- Created HTML and CSS from scratch for all components, later utilizing some preset elements from Tailwind CSS for more efficient work flow.
- Utilized Figma software to create wireframes as to ensure consistency across the UI/UX.
- Integrated AWS S3 buckets with IAM Users so that images of art, items, exhibitions and events can be easily rendered for users to view.

#### HeapLeak

[Github](#) | [Live](#)

Flask • Python • React.js • Redux • JavaScript • HTML • CSS

*A Q&A forum application where software engineers come for assistance.*

- Worked with a team of 4 engineers as a distributed team, allowing proper time management, workload division and delegation while providing feedback on functionality using Agile Development.
- Assisted with the creation and maintenance of proper documentation to communicate the goals of the project with end-users and the development team.
- Lead and planned the development of the backend database schema so that backend development would be streamlined and clear.
- Crafted User Stories to articulate how the end product will function and how it will be useful for users.
- Headed and developed Wireframes for every page using Figma Software, to ensure consistency in our rendering of information.

- Oversaw the UI/UX and CSS styling including CSS media queries so that the site is intuitive for users and that the approach to branding, color use, and fonts was reflective of the team's preferences or visions.
- Crafted and refined React.js and Redux state by dispatching thunks and API calls to ensure efficient and seamless data updates and rendering in the front end for full CRUD features.
- Used and directed the use of Git Feature Branching for quality control and clean merges.

### SquatSpot

[Github](#) | [Live](#)

Express.js • React.js • Redux • JavaScript • HTML • CSS

*A spot rental application where users can register, become a spot owner, and leave reviews on other people's spots.*

- Developed robust backend APIs using Express.js to power a dynamic web application to optimize performance and scalability.

### Facility Location

[Github](#)

Matplot.lib • NumPy • SimpleKml • Python • Google Earth • Pandas • subprocess

- Developed a Python-based facility location optimization model using libraries such as Matplot.lib, NumPy, and SimpleKml.
- Implemented a best-fit solution for a radius of 800km and 300km from highly populated cities.
- Visualized optimal site locations in Google Earth via KML output.

### Recommendation Algorithms

[Github](#)

Matplot.lib • Python

- Developed a Python-based recommendation system using collaborative filtering and content-based techniques
- Utilized machine learning algorithms to predict user preferences and suggest personalized movie recommendations. Use cross-validation to split the ratings data into training (80%) and testing (20%) sets.
- Evaluated system predictive performance using RMSE and other metrics
- Implemented data pre-processing, feature extraction, and visualization techniques
- Leveraged libraries such as Pandas, NumPy, and Matplotlib for data analysis and visualization.

## EXPERIENCE

### AI Coder, Trainer • *Outlier AI*

05/2024 – Current

- Demonstrated knowledge of best practices in **LLM** applications and responses by keeping up to date on changes.
- Rated responses according to Writing Style, Verbosity, Instruction Following, Truthfulness, Safety, Overall Quality and tool logs according to tool use correctness, function correctness, parameter and output correctness.
- Wrote succinct and clear justification responses with evidence to give to clients when choosing which model response is better.
- Promoted to Reviewer of other trainer's ratings to ensure adherence to documentation and rating guidelines from the client, fixing mistakes in judgment, ratings, and editing justifications for grammar and precision.

### Graphic Designer • *Freelance*

05/2024 – 08/2024

- Designed original graphics for use in client's online retail store increasing sales from an average of 5 to an average of 10 orders per day
- Utilized Adobe Illustrator and Adobe Photoshop to create designs and edit photographs to be printed onto posters and other signages

### Editorial Support Specialist & Teachers Assistant (TA) • *UIowa Honors Program*

08/2021 – 08/2023

- Managed more than 20 students and their articles, images, and media in order to create finished publications projects.
- Instructed students about journalism, interviewing, writing, editing, and adhering to style-guidance and university branding through interactive lecture presentations and one-on-one conferences.
- Edited, copy edited, managed and proofread all articles, following style guidance and university branding.
- Collaborated with and managed meetings with the design team to discuss how to best improve user interaction and experience with our publications and articles.

### Honors Writing Fellow • *University of Iowa Honors Program*

08/2021 – 12/2022

- Proofread and critiqued student papers, making notes on grammar-usage, sentence, paragraph, and essay structure, and adherence to their prompts.
- Tutored one-on-one through conferences with students about their work, workshoping their developmental concerns, allowing them to be more comfortable talking about their writing.

### Peer Leader & ESL Conversation Partner • *University of Iowa Conversation Center*

01/2020 – 12/2022

- Mentored practicum students on best practices in conversations according to the CC's pedagogy and values, meeting with them every week and assessing their progress in meeting minimum conversation hours.
- Lead and planned discussions, cultivating an inclusive and supportive environment, with students in groups of 5 or more, over Zoom or in classroom settings, allowing everyone to take turns speaking, and providing helpful resources for questions about housing and school administration.

**Security Clerk II & Student Clerk** • *University of Iowa Hospitals & Clinics*

08/23 – 05/25, 06/20-05/21

- Checked on average 400 patients in and out of the hospital and their appointments daily, scheduled appointments, and scanned confidential HIPAA information using Epic Software, having extensive training on Epic Software

EDUCATION

**App Academy** • Full Stack Web Development

2023-2024

**University of Iowa** • *B.A. French Language & Literature, Minor: English Lit* • Iowa City, Iowa

2019-2023

**La Sorbonne Nouvelle | CIEE** • *French Critical Studies : Study Abroad* • Paris, France

2023- 2024