KAITLIN WOOD

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EDUCATION

University of Houston — Honors College   August 2022 – December 2024
Bachelor of Science in Computer Science, Minor in Mathematics   GPA: 3.9
Relevant Coursework: Data Structures & Algorithms, Operating Systems, Databases, Software Design, Data Science

EXPERIENCE

Software Engineer I   February 2025 – Present
Mastercard   St. Louis, MO
- Built accessible UI components with ARIA attributes and keyboard navigation, increasing usability score
- Implemented robust test coverage during JS to TSX migration, improving overall code coverage to **98%**
- Optimized CI/CD Jenkins pipeline, decreasing build times by 35% while automating deployment processes

Teaching Assistant (Data Structures and Algorithms)   August 2023 – December 2024
University of Houston - College of NSM   Houston, TX
- Assist **450** students in understanding data structures, algorithms, and problem-solving, achieving **90%** pass rate
- Provide weekly office hours and review sessions for **50+** students, improving assignment completion rates by **15%**
- Increase student engagement by collaborating with the teaching team to design skill-specific problem sets

Undergraduate Research Assistant   May 2023 – August 2023
HULA (Houston Ubiquitous Learning Algorithms) Lab   Houston, TX
- Developed **VR** surgical training environments, incorporating **eye-tracking** and PVT outcomes to measure fatigue
- Optimized **machine learning** algorithms by refining hyperparameters and data cleaning, improving speed by **7%**
- Reduced user fatigue by **15%** with environment modifications, extending VR training sessions by up to **45** minutes

PROJECTS

Glow | SwiftUI, Cloud Firestore, Firebase Auth, Firebase Storage, Git/GitHub   November 2024
- Created iOS app with **SwiftUI**, integrating **Firebase Firestore** for real-time data sync and offline functionality
- Implemented **Firebase Auth** with email and social sign-in options, reducing authentification errors by **45%**
- Developed **Firebase Storage** system with automatic image compression and caching, cutting load times by **65%**

Dropawf | React.js, Node.js, Axios, HTML, CSS, MySQL, Azure, Git/GitHub   April 2024
- Led **5** developers to create and deploy a **full-stack** courier service web application, boosting operational efficiency
- Optimized queries and implemented multi-screen forms, reducing data retrieval time by **25%** and errors by **40%**
- Implemented **user authentication** for 5 user-roles using **JWT**, enhancing data protection and user access control

Wordle | Python, Unittest, Coverage.py, Paver, Pygame, Jenkins, Subversion   March 2024
- Developed Wordle game with modular, reusable components, reducing code duplication and improving scalability
- Streamlined development with **Jenkins CI/CD**, boosting reliability and speeding up feature delivery by **10%**
- Integrated spell-check and word selection **API**, reducing manual errors by **40%**, streamlining workflow efficiency

UPRR Asthma Hotspots | Python, Kelper.gl, Scikit-learn, PyTorch, TensorFlow, Git/GitHub   February 2024
- Performed EDA on **68,000+** records, identifying trends to guide predictive models and improve accuracy by **15%**
- Utilized **Kepler.gl** to visualize geospatial data, revealing correlations between asthma hot spots and UPRR lines
- Employed **TensorFlow** and **PyTorch** for data cleaning and model training, improving accuracy and data quality

SKILLS

Languages: Python, JavaScript, TypeScript, Swift, HTML/CSS, Java, C++, SQL, Kotlin, Scala, Erlang, Ruby, Rust, Lua, R
Libraries & Frameworks: React.js, Node.js, Spring/Spring Boot, TensorFlow, PyTorch, jQuery, Unittest, JUnit, Flask
Tools: Git/GitHub, Azure, AWS, Jenkins, Maven, Firebase, MySQL, Postgres, JWT, OAuth, Postman, Cypress, Nginx, Figma

LEADERSHIP

Director of Marketing   April 2023 – April 2024
Computer Science Girls   University of Houston
- Spearheaded marketing through flyers and recruitment boosting membership by **25%** within the first two weeks
- Collaborated with partner organizations and industry professionals to host weekly professional development events
- Increased visibility and engagement by **200%** through events and digital platforms by rebranding the organization

Webmaster   November 2022 – April 2023
Filipino Student Association   University of Houston
- Created a full-stack member portal that streamlined event operations by **25%**, supporting over **1,000** members
- Engineered secure **QR code** check-in system, eliminating manual point entry and decreasing event delays by **80%**
- Established **real-time notifications**, raising event attendance by **20%** and competition-eligible members by **40%**