# SEAN STANLEY

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#### **EXPERIENCE**

#### Software Engineer, CAE USA, Tampa, FL

June 2021-Present

- Wore multiple hats as a Developer, Tester, and Product Owner while holding **Top Secret** security clearance
  - Managed communication between cross-functional teams to ensure timely completion of deliverables and sprint goals
  - Worked directly with end users to capture feedback and incorporate changes into features
  - Responsible for demoing completed features to multiple user groups and receiving final approval
- Led charge to implement **Test-Driven Development**/ ensure that all codebases reached 80% unit test coverage
  - Created unit tests for .NET API using **xUnit.net** to maintain 80% test coverage per contract requirements
  - Implemented automated cross-browser testing of React application using **Selenium Webdriver**
- Worked within classified network environment to integrate developed solutions into target platform

#### Undergraduate Researcher, Virtual Experiences Research Group, UF

December 2020-October 2021

- Built prototype of PPCards, a card-based augmented reality learning platform for prototyping electronic circuits, meant to improve upon conventional online tutorials; see the TEI 2021 presentation here
  - Incorporated real-time feedback projected onto the workspace to alert users to mistakes, and provided contextual suggestions to correct errors
  - Paired OpenCV template matching with Python to facilitate computer vision image recognition
  - Designed and built projected AR interface using **Unity** and custom **3D-printed** parts
  - Used **Open Sound Control** messaging protocol to exchange messages between subsystems
- Headed up second project, blockXR, using tech from PPCards to implement a tangible version of Google's Blockly
  - Conducted user studies and presented showpiece at VL/HCC in October 2021; see the paper here

## Full-Stack Developer, Gator Trader React App, UF

January 2020-May 2020

- Worked with UF faculty to develop a responsive **React** replacement for UF's Textbook Exchange web service.
  Find codebase on GitHub
  - Handled page routing with **Express** and used **Bootstrap** and **MUI** for styling to create a modern aesthetic
  - Made use of the **Mocha** test framework to create test cases
- Conducted a user study of UF students, finding that surveyed users were 80% more satisfied with new design

# **PERSONAL PROJECTS**

#### **Brewd - A Social Coffee Experience**

April 2024-Present

- Designed and developed Brewd, a coffee-rating Next.js webapp that helps users discover, rate, and share their coffee experiences, inspired by Letterboxd, Untappd, and Backloggd. Find codebase on GitHub
  - Created interactive prototype using using Figma. Utilized Google's Places API for location data
  - Designed backend services and database schema using Postgres and Drizzle ORM to ensure robust data management and NoSQL querying capabilities
  - Utilized **Headless UI/Radix UI** for creating accessible, reusable, and keyboard-navigable UI components
  - Resolved style conflicts in reusable components by combining **clsx** and **twMerge**

### **Roll for Init 5E Tabletop RPG Aide**

January 2021-June 2021

- Worked on Open Gaming License-compliant alternative to sites like D&D Beyond. Find codebase on GitHub
  - Used UX principles to design high-fidelity prototype in **Adobe XD**, see the mockup here
  - Utilized React Redux for state management, React-Router for front-end routing, Express middleware for API routes, and Mongoose for schema
  - Optimized **REST API** calls with caching to reduce page load times on refresh by at least 70%

#### **SKILLS**

- JavaScript: Next, React, React Context API, Redux, TypeScript, REST APIs, ES6+, ESLint
- Web: HTML5, CSS/SCSS, Tailwind CSS, Radix UI, Accessible Design w/ axe DevTools/WCAG 2.1 guidelines, Framer Motion, Selenium WebDriver/Test Automation, Vercel
- General: Git, Drizzle ORM, Figma, Python, C++/C#/.NET, Java, Linux, Agile Development, Sprint Management,
  User Validation Testing, Microsoft Office, Super-Advanced Stack Overflow Navigation

#### **EDUCATION**

#### University of Florida, Gainesville, FL

August 2016-May 2021

- B.S. in Computer Science, minor in Electrical Engineering, 3.65 GPA with Magna Cum Laude honors
- Coursework includes: Data Structures, Software Engineering, Human-Computer Interaction, UX Design, Computer Networks, Information and Database Systems, Digital Logic, Discrete Structures, and Engineering Research