

Henry Graves

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EXPERIENCE

Software Engineer - Associate

July 2023 – Present

Fannie Mae

Reston, VA

- Led development of an integration for automatic data updates in reports and documents, greatly enhancing user experience, reducing errors, and saving 300+ hours annually for business users.
- Gathered user feedback and refactored 2500+ lines of code in a Flask application, enhancing performance and UX.
- Used Python, PySpark, Pandas, and AWS with a team to develop a reporting data pipeline feeding into Tableau dashboards, eliminating 90% of manual report queries and reducing business partner cycle time by 80%.
- Independently achieved three AWS certifications within 6 months then applied expertise in application development, cloud, Terraform infrastructure as code, and CI/CD to cloud native development and cloud migrations.
- Achieved and maintained 80%+ code coverage through Python unit tests, including optimizing existing tests.
- Monitored production systems, remediated code vulnerabilities, and resolved defects promptly.
- Demonstrated leadership by mentoring new graduates and an intern, advocating for software engineering best practices, speaking on professional development panels, and presenting my work to an audience of 75+ engineers.
- Voted as the Most Valuable Programmer by instructors and 25 peers after a 12 week full-stack training program.

Software Engineer

Aug. 2021 – Oct. 2022

BiiND

Jacksonville, FL (remote)

- Developed a responsive website and programmed game features using Javascript for a startup building a custom fork of Mozilla Hubs, a cross-platform mobile, web, and VR app where you can socialize, work, and play.
- Rightsized and scheduled AWS services to save 18% on billing, then forecast cost estimates at levels of scale.

PROJECTS

Rock Climbing Social Media | *Firebase, TypeScript, Expo, React Native*

Aug. 2022 – May 2023

- Developed a mobile and web social media app to promote community around rock climbing at UCF.
- Ranked as a Finalist at UCF's Spring 2023 Senior Design Showcase after competing with 35 other project teams.
- Proposed Firebase as a way to reduce back-end development time and complexity, stay under budget for the expected scale, and launch 4 weeks early to rapidly deliver valuable experiences to users.
- Designed a semi-automated content moderation and review system for text, image, and video posts.

Unity 3D Action Game | *Unity, C#*

Jan. 2022 – May 2022

- Led and taught three devs without Unity experience, winning Best Gameplay Design out of 15 teams.

Nonprofit Website Redesign | *Node.js, Bootstrap, CSS, HTML, Figma*

Aug. 2021 – Dec. 2021

- Served as lead front-end developer while redesigning a financial education nonprofit's website for free.
- Built an interactive mockup through Figma to administer user studies with before development, improving user satisfaction by 70% over the original website and saving development time by avoiding unnecessary iterations.

Google Software Product Sprint | *Firebase, Node.js, Bootstrap, CSS, HTML*

Feb. 2021 – May 2021

- Selected as one of 182 students for an invite-only software engineering training and mentorship program, focusing on best practices, code reviews, agile methodologies, communication with diverse teams, and technical presentations.
- Created a web app to visualize political contribution data using OpenFEC and Google Charts APIs.

EDUCATION

University of Central Florida

Aug. 2019 – May 2023

BS in Computer Science, 4.0 GPA, National Merit Scholar, Burnett Honors

Orlando, FL

- Coursework included Web Development and UX, Object Oriented Programming, System Design, Machine Learning, Artificial Intelligence for Games, Robotics, Data Structures and Algorithms, Systems Software, and Cybersecurity.

TECHNICAL SKILLS

Languages: Python, Java, SQL, JavaScript, TypeScript, HTML, CSS, C#, C

Frameworks & Libraries: Flask, Spring, PySpark, Pandas, UnitTest, Node.js, Angular, React Native, Expo, Tailwind

Other: Git, AWS, Firebase, NoSQL, PostgreSQL, Terraform, Selenium, Cucumber, Postman, Jira, Unity

Certifications: AWS Developer Associate, AWS Solutions Architect Associate, AWS Certified Cloud Practitioner