

RACHEL PU

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EDUCATION

UNIVERSITY OF FLORIDA

Bachelor of Science

Major in Computer Science; Minor in Digital Arts & Sciences

Cumulative GPA: 3.78/4.0

Aug. 2022 – May 2026

Gainesville, FL

Relevant Coursework: Software Engineering, Data Structures & Algorithms, C++ Fundamentals, Computer Organization, Computational Linear Algebra, Operating Systems, Creating Mobile Games

SKILLS

Certifications: UF AI Certificate in AI Fundamentals & Applications (In Progress)

Technical Skills: Java, Python, Flask, C++, HTML, CSS, Javascript, React.js, React Native, MongoDB, GDScript, Tailwind CSS

Developer Tools: Github, VSCode, PyCharm, CLion, Google Cloud Platform, Figma, Godot

WORK EXPERIENCE

DEPARTMENT OF VETERANS AFFAIRS – Digital Media Engagement Team

Sep. 2024 – Present

Web Development Intern

Remote

- Managing & upgrading the official DME Team's **WordPress** internship page, handling **1,000+ monthly** visitors
- Leveraging **AI plugins & ML-based** recommendation system to deliver personalized content for prospective interns

UNIVERSITY OF FLORIDA – Dept. of Computer, Information Systems, & Engineering

Aug. 2024 – Present

SWE Undergraduate Researcher, *Amanpreet Kapoor, M.S*

Gainesville, FL

- Revamping WiNG.it using **Next.js**, **Tailwind CSS**, & **Python** to improve personalization through **natural language processing (NLP)** & upgrade platform scalability to support **2,000+** concurrent users at UF, aiming to increase user engagement and retention by **80%**
- Researching **OpenAI API** integration to increase personalized feedback accuracy by **40%** and simulation realism by **30%**
- Utilizing **predictive model APIs** to analyze student learning patterns to proactively suggest paths and resources

FLORIDA INSTITUTE FOR NATIONAL SECURITY (FINS)

Mar. 2024 – Present

AI Undergraduate Researcher, *Dr. Damon Woodward*

Gainesville, FL

- Conducting **graduate research** on formalizing methods to describe **eXplainable AI (XAI)** in different AI models
- Co-developing framework benchmarking **180+** XAI methods, aiming to improve clarity for diverse user types by up to **70%**
- Collaborating on an **automated XAI pipeline** to test **ML models** (e.g., **neural networks, CNNs**) for healthcare, military, and finance
- Streamlining the XAI process by analyzing **LLM** prediction scores, metrics, & optimizing reports with a **3-person** team, expected to increase report efficiency and accuracy by **35%**

UNITED PARCEL SERVICE (UPS)

Jun. 2024 – Aug. 2024

Engineering Intern

Singapore, SG

- Developed a **Python** postal segmentation application, reducing processing time for **400,000+** unique country code records
- Engineered a user-friendly GUI with **Tkinter** & a backend using **Pandas**, increasing output efficiency by **over 95%**
- Accelerated first phase of a supply inventory management system (SIMS) deployment across UPS APAC region by over **65%**
- Presented application & documentation with **Operations Engineering** department for direct feedback & in-person testing

UNIVERSITY PROJECTS

CARE | React Native, Expo, MongoDB, Google Gemini API

Oct. 2024

- Co-developed a **React Native** mobile app for mothers with postpartum depression with mood check-ins, journaling, and health tracking
- Implemented AI mood analysis via **Google Gemini API** to track emotions and personalize meditation and journal prompts
- Implemented **secure authentication** and used **Axios** to integrate **MongoDB** queries, enabling seamless data retrieval

WiNG.it | Python, Flask, JavaScript, HTML, CSS

Apr. 2024

- Co-developed a **Python** web app in a **36-hour hackathon**, integrating gamification & realistic interview simulations
- Integrated front-end and back-end with **Flask**, optimizing the database for **30%** faster data retrieval and seamless UI
- Awarded WiNGHack **First Flight Award** for Best First-Time Hackers' Project among **130+** participants

Pig E-Bank | React, Javascript, MongoDB, Java

Jan. 2024 – Apr. 2024

- Co-developed a finance web app, merging financial tracking with gamification for a fun & rewarding experience
- Led front-end development with **React** and Ant Design, ensuring **100%** responsiveness and a **30%** faster **MongoDB** sync
- Recognized as one of the **top** projects in our class of **300+** students

ACTIVITIES

UF CS KICKSTART

Jan. 2024 – Present

Co-Director of Events

Gainesville, FL

- Facilitated CSK's 3-day intro week with icebreakers & events for **20** incoming UF CS students, boosting participation by **40%**
- Collaborated with other professional organizations in the UF CS community to boost engagement within CSK by **85%**

JIATING LION AND DRAGON TROUPE LLC.

Mar. 2024 – Feb. 2024

Public Relations Chair & Varsity Choreographer

Gainesville, FL

- Directed and organized a large-scale dance piece for multiple multicultural-based events for **300+** student audience
- Increased social media engagement by **200%** through content creation, aligning with target audience trends