

Pranavsai Gandikota

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EDUCATION

University of Central Florida

Orlando, FL

B.S. Computer Science | **GPA: 3.99/4.0** | President's Honor Roll 2024, 2025

Aug. 2024 – Expected May 2028

Clubs: SASE (CS Tech Chair), AI UCF (**Projects Director**), KnightHacks (Web Dev/Design), SHPE

EXPERIENCE

Software Engineering Intern

May 2026 – Aug. 2026

Ford Motor Company (Global Trade Services, Order Fulfillment, Marketing & Sales Technology)

Dearborn, MI

- Cut average processing time by **92% (45 to 3.5 minutes)** by modernizing **6 legacy batch processes** from a **Struts** application into a **Java 21/Spring Boot** microservice on **GCP Cloud Run** triggering **PostgreSQL** stored procedures.
- Validated migrated extracts against **200K+ records** and coordinated scheduled **SFTP** delivery to GECHUB with the **overseas QAD team**, preserving fixed-width **QAD ERP** outputs and downstream **invoicing workflows**.
- Built an **event-driven Pub/Sub** pipeline using serverless functions to automate the refreshing of affected Spring Boot services through **Apigee** after **secret rotations** on **Secret Manager** over **84 services** and **49 secrets**.
- Presented **Pub/Sub architecture** to **109 engineers** at a Software Craft session, gathering feedback and suggestions.
- Added **143 automated tests** with **90%+ coverage** for the migrated QAD microservice and resolved **31 critical SonarQube findings** before release through **Tekton CI/CD**.

Teaching Assistant – Object-Oriented Programming with Java

Jan. 2026 – May 2026

College of Engineering and Computer Science, UCF

Orlando, FL

- Held weekly office hours and evaluated programming assignments for a **166-student Java OOP** course, helping students debug code and reason about **object-oriented design**.

Research Assistant

Sep. 2024 – Dec. 2025

Interactive Systems and User Experience (ISUE) – VR and HCI Lab, UCF

Orlando, FL

- Fine-tuned **3 Llama 3.1 8B adapters** with **QLoRA** on **1,820 NASA-TLX** and **SUS** examples to predict cognitive load and usability scores from VR study responses.
- Built a **Python** text-to-3D pipeline connecting structured scene extraction, **Stable Diffusion 3.5** image generation, human review, and **TRELLIS** reconstruction.

PROJECTS

uKnight | Java, Spring Boot, Redis, WebRTC, WebSockets, PostgreSQL, Docker, GCP

- Led a **6-member team** building a university video-chat platform; deployed the **Spring Boot/WebSocket backend** on **GCP Cloud Run** and implemented **WebRTC** connectivity with **ICE/STUN/TURN** for NAT traversal.
- Moved matchmaking and session state from in-memory storage to **Redis**, using a **ZSET queue** and **atomic Lua operation** to prevent concurrent double-matches and share matchmaking state across multiple backend instances.

UCF SASE Official Website | Next.js, TypeScript, Supabase, PostgreSQL

- Led the **web team**, planned and delegated frontend and backend tasks, and integrated contributors' features into a platform supporting **220+ registered members**, weekly event registration, membership, attendance, and email engagement.
- Built the **QR check-in and attendance system**, designed the **PostgreSQL schema**, and integrated an admin dashboard for event and form creation, RSVP tracking, and club demographics.

Paradise | WebRTC, ONNX Runtime, YOLO, Depth Anything V2

- Won **3rd Best Overall at ShellHacks 2026** among **290+ projects** and **1,400+ attendees**.
- Built a **WebRTC** phone-to-laptop vision pipeline running **YOLO** and **Depth Anything V2**, converting object, obstacle, GPS, and compass cues into **Joy-Con haptics** for a **DeafBlind navigation** prototype.

TECHNICAL SKILLS

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

Frameworks & Web: Spring Boot, Spring Actuator, React, Next.js, Node.js, Express, WebRTC, WebSockets

Databases & APIs: PostgreSQL, MySQL, Redis, Supabase, REST APIs, OAuth 2.0, Apigee

Cloud & DevOps: GCP (Cloud Run, Pub/Sub, Cloud Storage, Secret Manager), Terraform, Docker, Tekton, SonarQube, Linux

AI / ML: PyTorch, CUDA, Hugging Face Transformers, QLoRA, ONNX Runtime, Stable Diffusion 3.5, TRELLIS

Tools: Git, GitHub, Jira, Unity, Blender, Claude Code, Codex, Cursor, GitHub Copilot