

# Sai Pranav Reddy Guduru

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## EDUCATION

### University of Florida

BS/MS in Computer Science (**GPA: 3.7**)

Gainesville, FL

Aug. 2022 – May 2027

**Relevant Courses / Certifications:** Data Structures and Algorithms, Intro to Databases, Operating Systems, Programming Language Concepts, AI Fundamentals, Intro to Computer Organization, Cryptology, CodePath Advanced Data Structures, AWS Certified AI Practitioner

## TECHNICAL SKILLS

**Languages:** Python, C++, SQL, MATLAB, Java, JavaScript, HTML/CSS

**Frameworks/Tools:** LangChain, React, MongoDB, Git, Figma, Tailwind, Unreal Engine 5

## EXPERIENCE

### ML Research Intern

Ames National Laboratory

May 2025 – Present

Ames, IA

- Developed DuctGPT, a specialized transformer-based model to predict ductility in tungsten-based high-entropy alloys by leveraging compositional descriptors.
- Automated descriptor extraction and inference across 1,100 alloy samples, reducing runtime by 30% and enabling scalable ductility prediction.
- Co-authored a paper on ductility prediction using Random Forest and XGBoost (2nd author); first-author paper on DuctGPT under preparation for a Computational Physics journal.

### Software Engineering Intern

Chromatic Games

Jun 2024 – Aug 2024

Gainesville, FL

- Trained a narrative language model using LangChain on over 50,000 lines of web-scraped game lore, enabling procedurally generated story endings in Unreal Engine 5.
- Integrated the model into UE5 via a pipeline, cutting down narrative scripting time by 30% while maintaining thematic consistency.

### Data Research Intern

UF College of Public Health

Jan 2025 – May 2025

Gainesville, FL

- Created Python/R scripts that processed large-scale survey data, boosting processing speed by 40%.
- Processed and visualized survey data from 2,000+ educators to identify trends in occupational stress.

### Teaching Assistant – Discrete Structures

University of Florida

Aug 2023 – Dec 2024

Gainesville, FL

- Led weekly discussion sections for a cohort of 40 students, delivering in-depth instruction on core topics.
- Designed and authored quizzes, homework sets, and midterm exams administered to 500+ students.
- Collaborated with faculty and a team of 8+ TAs to align grading rubrics and instructional materials.

### Student Supervisor, UFIT

University of Florida

May 2023 – Present

Gainesville, FL

- Led a cross-functional student team of 50+ to resolve IT support issues; ensured high SLA compliance.
- Assisted 1000+ users with IT questions, including the GatorLink account creation process, Wi-Fi, email, VPN, multi-factor authentication.

## PROJECTS

### Design Project Sponsored by Johnson & Johnson | Computer Vision, Robotics

Aug 2025 – Present

- Developing computer vision techniques to validate automated processes, ensuring accuracy, reliability, and consistency in advanced manufacturing workflows.

### Car Finder | ReactJS, Tailwind CSS, REST APIs

Jun 2025 – Present

- Built a responsive web app that helps users search over 50,000+ cars by integrating a location-based REST API.
- Reduced search time by 40% through optimized filter logic using dynamic React state management.