

# Shivaganesh Nagamandla

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## EDUCATION

### University of Central Florida

*Bachelor of Science - Computer Science (Dean's List x2, Bright Futures Scholar)*

Orlando, FL

April 2026

## TECHNICAL SKILLS

**Programming Languages:** Python, Java, JavaScript, TypeScript, SQL, C/C++, HTML, CSS, Bash

**Frameworks:** React.js, Next.js, Node.js, Express.js, NumPy, Scikit-learn, Qiskit, Pandas, Tailwind

**Developer Tools:** Git/Github/GitLab, Docker, Postman, Jira, Cursor, Visual Studio, PyCharm, CLion, Eclipse

## EXPERIENCE

### Hexaider Technologies

Maitland, FL

*Software Engineer Intern (Airline Solutions)*

August 2024 – December 2024

- Developed Spring Boot booking APIs within a flight reservation microservice, achieving a 28% increase in transaction success rates during peak booking windows
- Engineered a solution to convert Kafka flight event streams into structured updates for a React.js flight status dashboard, reducing agent response time by 35%
- Managed 6 GitLab CI configurations, enhancing deployment efficiency by 25% and minimizing build overhead for airline microservices

*Data Engineering Intern (Data Migration)*

May 2024 – August 2024

- Optimized Oracle SQL scripts, improving query performance by 27%, for extracting HR data from PeopleSoft HCM into Excel templates
- Created unit tests for SQL extractions using parameterized mock datasets to reduce manual QA effort by 30%
- Built Python scripts to validate Excel-based HR data extracts, detecting 100+ anomalies across reports (Agile)

### Computer Science Club

Sanford, FL

*President*

September 2022 – April 2023

- Led development of the Crooms TechFest web app, integrating live event schedules and jQuery-based feedback forms, driving a 21% increase in student attendance
- Revamped the collaborative coding initiative, increased active member participation by 58% over the previous year.
- Collaborated with Lockheed Martin and other sponsors to facilitate networking for 500+ students

## PROJECTS

### Retriv.ai (In Progress) | *Vue.js, Firebase, Vuex, DeepSeek AI*

- Co-developing an AI-powered study platform combating student procrastination through smart scheduling and retention techniques
- Designed a custom prompt engineering pipeline for DeepSeek AI API, achieving 87% relevance score in generating study materials from uploaded content
- Implemented WebSpeech API for speech-to-text functionality with 94% accuracy rate across 8 languages

### LyricLingo | *React, Node.js, MongoDB, Express, Redis, JavaScript*

- Developed a full-stack language learning app leveraging Spotify, Genius, and DeepL APIs with JWT authentication, enabling real-time lyric translations in 9+ languages at 95% accuracy
- Engineered a custom language auto-detection and lyric deduplication algorithm, reducing external API costs by 40%
- Built an NLP pipeline with Hugging Face's RoBERTa model to classify lyrics into 28 emotion categories (82% accuracy)
- Implemented Redis caching for flashcards and sentiment analysis, reducing load times 3+ seconds to under 200ms
- Deployed to <https://lyriclingo.vercel.app>

### Slumber | *React, Next.js, TypeScript, Tailwind CSS*

- Developed a sleep optimization tool to help users identify optimal bedtime and wake-up times
- Built React components with TypeScript and custom hooks for efficient time calculations and persistent user preferences
- Created procedurally generated animations using HTML Canvas, reducing rendering overhead by 30%
- Deployed to <https://slumber-nine.vercel.app>