Giridhar Nair

Seeking internships to enhance my software engineering skills through hands-on project experience and mentorship.

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EDUCATION

University of Texas at Dallas   Richardson, TX
Bachelor of Science in Computer Science   *Expected Grad: May 2027*
Relevant Coursework: Discrete Math For Computing I, Computer Science I/II, Differential/Integral Calculus

Udacity   Remote
AI Programming with Python & Business Analytics Nanodegree   *June 2023 - July 2023*
Relevant Coursework: Applied AI with Python, Neural Networks, SQL for Data Analysis, Data Visualization in
Tableau, Linear Algebra Essentials, Calculus Essentials

EXPERIENCE

University of Texas at Dallas   Richardson, TX
Data Analytics Research Intern   *June, 2022 – July, 2022*
- Used SQL to analyze and extract insights from diverse datasets through data aggregation and joining, resulting in valuable trend and pattern identification across 1000+ records
- Facilitated clear presentations of queried insights and patterns with Tableau, enabling informed decision making and 30% improvement in data analysis efficiency
- Utilized Matplotlib and NumPy Python libraries within Jupyter Notebook to create insightful visualizations from complex .csv files, facilitating a foundational comprehension of developing data insights

PROJECTS

YourDailyRundown | *React.js, Python Flask, SQLite, Chakra UI* | Demo | Github   *July 2023 - August 2023*
- Developed a daily newsletter by leveraging Google's PaLM 2 API for summarizing content from 8 user-selected interests, sourced via NewsAPI.org, and managed email distribution using Twilio's SendGrid email API
- Established a robust Flask backend hosted on PythonAnywhere, featuring 3 API endpoints (subscription, un-subscription, and viewing all registered users), and employed SQLite for efficient user data storage
- Developed a Python script for automated daily email distribution to subscribers, utilizing PythonAnywhere's scheduled tasks for execution at 8 AM CST
- Constructed a responsive React.js frontend with Chakra UI, ensuring error-free form submissions and reliable data transfer to the backend system through Axios

CodeTogether | *Reacts.js, Tailwind CSS, Node.js, Docker* | Demo | Github   *May 2023 - June 2023*
- Developed a web-based, minimalistic collaborative code editor supporting 74 programming languages, leveraging Microsoft's Monaco editor for efficient syntax highlighting via the monaco-editor node package
- Integrated real-time document update propagation using Y-Webrtc, an open-source backend solution enabling appends of up to 6000 characters in just 1 ms, deployed through Heroku
- Utilized Axios to send HTTP requests to the JDoodle REST API for code compilation, achieving an average latency of 1,508ms

Pong Game AI | *Python* | Demo | Github   *July 2023*
- Used the NeuroEvolution of Augmenting Topologies (NEAT) algorithm, integrated through the neat-python library, to train AI agents in a Pong game created with Pygame
- Implemented 3 difficulty levels with varying AI configurations and training generations, including a hard difficulty that underwent 50 generations of the NEAT algorithm, with a fitness threshold of 300

A* Algorithm Visualizer | *Java* | Demo | Github   *April 2023 - May 2023*
- Visualized the A* algorithm on a 15 by 11 grid with 4 functionalities: adjustable speed, interactive obstacles, start/stop/pause controls, and sound effects using the Java.awt, Javax, and Java Swing libraries
- Implemented a dark mode theme for Java Swing through integration with FlatLaf, an open-source cross-platform Look and Feel library (800 KB) for the Java Swing framework

TECHNICAL SKILLS

Languages: Python, Java, Javascript, SQL, HTML/CSS
Frameworks and Libraries: React.js, Node.js, Flask, TensorFlow, PyTorch, NumPy, Pandas, Matplotlib, Java Swing, Java.awt, Tailwind CSS, ChakraUI
Developer Tools: Git, Github, Amazon Web Services (AWS), Google Cloud Platform (GCP), Firebase, Heroku, Github Actions, Vercel, PythonAnywhere, Tableau