

Sathya Padmanabhan

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EDUCATION

Rice University

Bachelor of Science in Computer Science, Minor in Business

Houston, TX

Aug. 2023 – May 2027 Expected

EXPERIENCE

RiceApps

Rice University

Aug. 2023 – Present

Houston, TX

- Worked with Texas Heart Institute to develop fitness tracker and engagement app for heart patients
- Developed a full-stack application using React Native, Node.JS, Express, and MongoDB to allow heart patients to be more active.
- Explored industry-level experience through weekly sprints, SCRUM meetings, and code reviews

Rice Eclipse: Rocketry Club

Rice University

Aug. 2023 – Present

Houston, TX

- Developed object-tracking for rocket flights through CV, DeepSort, and ML.
- Designed pan-tilt camera system using CAD, operated through Arduino with C++
- Helped design autonomous paraglider for payloads using CAD, Python, Linux

ASDRP: Team Lead, Researcher

Aspiring Scholars Directed Research Program

Dec. 2021 – July 2023

Fremont, CA

- Explored methods to network spread of COVID-19 among vaccinated sub-populations
- Developed an interactive digital world map through JS, extracting vaccine data using R
- Created neural net model to predict risk factor of COVID-19 using Python and visualized networks through Gephi
- Performed Topological Data Analysis on genes of neurodegenerative diseases using Python
- Wrote community detection algorithm to discover patterns in the topology of various genomics data
- Presented at 2023 OHBM international conference in Montreal

PROJECTS

StockFin | *React, Tailwind, Firebase, Python, Flask*

Jan. 2024 – Present

- Developed a full-stack all-in-one finance web application using React JS, Tailwind CSS, and Firebase
- Implemented OpenAI API to create a generative chatbot that draws real-time market data to give stock insights
- Created a stock prediction algorithm using Python scikit-learn and connected endpoints using Flask
- Created a personalized budget optimizer that gives spending and saving suggestions through AI powered feedback

VolPoints | *Flutter, Dartcode, Figma*

July 2022 – Sept. 2022

- Developed an app to help volunteers connect with each other and find service opportunities
- Worked with developers to learn the Flutter framework and wrote 500+ lines of code
- Created a token system for tracking the amount of service hours volunteers completed
- Designed an organization section to help organizations find volunteers nearby willing to provide services

Exoplanet Detection | *Python, Google Colab, TensorFlow, Pandas*

Dec. 2021

- Developed a CNN machine learning model to detect exoplanets
- Implemented NASA transit photometry data to train and test the model
- Presented to cohorts of students in an AI centered initiative program

TECHNICAL SKILLS

Languages: Python, C++, HTML/CSS, R, Java, JavaScript, Dart

Frameworks: React, React Native, Node.js, Express Flask, API, Firebase, Flutter

Developer Tools: Git, Postman, Google Colab, VS Code, PyCharm, IntelliJ, Eclipse, Figma

Libraries: Pandas, NumPy, Matplotlib, Scikit-learn, TensorFlow, OpenCV, Recharts