

Arun Natarajan

B.Tech CSE NITC

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Arun Natarajan ArunNats arunnats2004

Education

National Insitute of Technology Calicut	St Josephs Academy	St Joseph's Academy
Computer Science and Engineering	98.4%	95%
8.06 CGPA	School and district topper	School topper
B.Tech	ISC - 12th Grade	ICSE -10th grade
2022-2026	2022	2020

Experience

CoreStack

SWE Summer Intern

May 2024 - Present

-Developed data generation programs based on the Azure CSP schema, encompassing over 50 correlated fields. These programs randomly generate data and calculate costs based on various input parameters to estimate user service billing.

-Built FastAPI servers to provide API endpoints that accept date ranges, billing details, and product codes, generating cost per product and total cost over the billing period. Hosted sample data on MongoDB, enabling server caching.

- FastAPI, Python, MongoDB

https://www.corestack.io/

Hardware Lab - CSED, NITC

Summer Intern

May 2024 - June 2024

-Wrote MIPS code and created extensive documentation to serve as study material for the Hardware Lab course at NITC. Worked on recursion and function parameter passing in MIPS assembly.

Hardware Lab Documentation

Projects

Movie Match

Website which aggregates and provides streaming information about all movies.

Winners of Bit'N'Build International Hackathon 2024 Kerala State

-Developed a Python script to collect and update data daily from multiple public internet sources, enhancing data availability and accuracy.

-Built a responsive website backend using JavaScript with Node.js and Express, using a fuzzy search engine with Fuse.js that sorts by multiple filters and movie ratings, improving user search experience.

-Integrated OpenAI API to provide personalized movie recommendations, offering tailored suggestions based on user preferences.

javascript, MongoDB, OpenAI, python, nodeJS, fuseJS, Web Development

https://github.com/arunnats/movie-match

FLiX

Machine Learning model to give movie recommendations

-Developed Flix, a web app for movie recommendations, using Vite and React for a responsive user interface styled with Tailwind CSS. Built a collaborative filtering AI model using Python trained on the MovieLens dataset, hosted on a FastAPI server, to provide personalized book suggestions.

-Stored movie data in a MySQL database, ensuring reliable data management. Data visualization was done through MathPlotLib and Seaborn.

MySQL, ReactJS, Vite, Tailwind, Python, Machine Learning, Data Science, Web Development

https://github.com/arunnats/Flix

YouTube Video Conveter

Web Application to Convert and Download YouTube Videos

-Developed a YouTube video converter allowing users to convert video links into MP3 or MP4 formats of their choice, with video encoding handled by FFmpeg.

-Hosted on Google Cloud Apps, ensuring scalability and reliability for multiple user requests. Built with Node.js running Express sessions to efficiently manage concurrent requests.

JavaScript, FFMPEG, ExpressJS, Google Cloud Services, NodeJS, Bootstrap

http://yt-converter.arunnats.com/

Minutes Maker

Web-app that generates minutes from uploaded audio

Solo project

-Developed a web app hosted on Google Cloud to automate meeting transcription and minute generation, integrating Deepgram Nova 2 for transcription and OpenAI GPT-3.5 for creating meeting minutes, with a user-friendly interface.

-Built the backend with Node.js, using Express.js, Axios for API interactions, and Multer for handling audio file uploads to Google Cloud.

OpenAI, Deepgram Nova, NodeJS, ExpressJS, Axios, Multer, Javascript, Web Development

https://minutesmaker.arunnats.com/

Skills

JavaScript	Python	C	C++	MySQL
MongoDB	NodeJs	ReactJs	FastAPI	Machine Learning
Data Science & Visualization	Content Writing	Digital Design & Video Editing	Marketing & PR	Talent Acquisition

Student Involvement

Computer Science and Engineering Association Excecutive -Hosted and taught a Verilog 101 introductory lecture to familiarize freshman students with the basics of their hardware courses. -Organized and managed department events and designed merchandise.	FOSSCELL NITC Design Head -Volunteered at the Linux installation drive -Volunteered to teach at " Git and Github basics" workshop -Participated in the organizing and design committee of FOSSMEET	Literary and Debating Club Writer, Designer and Tech Team -Designed and wrote articles published on the website and Instagram page and participated in debates and speeches -Managed and hosted talk shows, open debates and cultural and literary programs
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