

VISHNU VARDHAN PUPPALA

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LinkedIn

GitHub

👤 Portfolio

Experience

BNY - Bank of New York

July 2024 – Present

Software Engineer

Chennai, Tamil Nadu

- Delivered optimized REST APIs with **Java Spring Boot** for large entitlement datasets, replacing a legacy reporting system and enabling modern, user-friendly PDF/Excel outputs.
- Evaluated multiple approaches (**Java Streams, Reactive Java, Pagination**) for handling large datasets and implemented a high-performing, efficient solution.
- Integrated an **AI-powered RAG SQL query agent** that reduced client data retrieval time by **85%**, from 5–7 minutes to under 30 seconds.
- Led the end-to-end development of a data migration solution to transfer data from legacy systems to latest systems, identifying and resolving schema and constraint issues to ensure reliable and accurate data transfer.

MAQ Software

May 2023 – July 2023

Software Developer Intern

Hyderabad, Telangana

- Developed E2E automated tests with **Playwright**, verifying UI interactions and data flows, achieving **90%** reduction in manual testing effort.

Education

Indian Institute of Technology Tirupati

Nov 2020 – July 2024

Bachelor of Technology

Tirupati, Andhra Pradesh

Projects

Randomized Neural Architecture Search | *Python, Pytorch*

September 2023 – May 2024

- Proposed **Randomized Neural Architecture Search (RNAS)**, combining ideas from NAO and MRAS methods into a more efficient framework for discovering neural network architectures.
- Implemented a 4-component system (encoder, performance predictor, decoder, enhancer) achieving **97.22%** accuracy on CIFAR-10 and competitive results on PTB.
- Showcased effectiveness across CNNs and RNNs compared to standard NAS and NAO approaches.

Debt Detective | *ReactJS, Bootstrap*

March 2023 – April 2023

- Built a **VS Code extension**, that integrates multiple external analysis tools to quantify technical debt based on five parameters — Package Vulnerability and Security, Community Activeness and Maintenance, Coding Quality and Standard, Code Vulnerability and Security, Deprecated/Dead and Outdated code.
- Designed automated workflows to aggregate and visualize metrics from various tools, providing developers with insights and recommendations to enhance their code and reduce technical debt.

Tirutsava – Annual Techno-cultural fest of IIT Tirupati | *ReactJS, Bootstrap*

January 2023 – March 2023

- Developed a few components of the Tirutsava website as part of the Web Development Committee, showcasing events, schedules, and registration flows.

Technical Skills

Programming Languages and Databases: C++, C, Java, JavaScript, TypeScript, Python, SQL, DB2, MongoDB

Frameworks and Web Technologies: Spring Boot, Express.js, React.js, Next.js, HTML, CSS, Bootstrap

Core Competencies and Tools: REST APIs, Microservices, System Design, Git, GitHub Copilot, M365 Copilot

Big Data and Distributed Systems (Exploration): Apache Spark (RDDs, SparkSQL, Spark Streaming)

Certifications

NPTEL

- Top 1% in NPTEL certifications – Cryptography and Network Security, Blockchain and its Applications.

Achievements

Competitive Programming | *C++*

January 2023 – Present

- Expert in Codeforces with a maximum rating of 1622. (Codeforces profile)
- 5* Coder in CodeChef with a maximum rating of 2039. (CodeChef profile)
- Among the top 2.5% coders in LeetCode with a maximum rating of 2026. (LeetCode profile)

JEE Advanced

September 2020

- Secured a rank of 1873 in JEE Advanced 2020 (out of 12,00,000+ Applicants for JEE).