

Atharva Tonape

A.I Developer and Software Developer

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PROJECTS

Redis-Pro-Max 🔗

Developed a Python-based task distribution system similar to Redis, with automatic worker scaling and deletion to optimize resource usage. Built with **Flask, Docker, AWS, and GitHub Actions** for seamless deployment and CI/CD integration.

- Implemented real-time worker **auto-scaling** based on load.
- Created a task management system to evenly **distribute workloads**.
- Enabled **Dockerized deployment** and self-contained data storage.
- Integrated **GitHub Actions** for automated testing and deployment.

Directure 🔗

Overview: Developed a Python tool to easily visualize and share directory structures and file contents, aimed at simplifying project structure explanations for **debugging with AI tools like ChatGPT**.

Features:

- Visualize **project directory** structures.
- Optionally include file contents in the output.
- Customizable ignore and explore lists.
- Write directory structures and file contents to an output file.

PROFESSIONAL EXPERIENCE

T-system

AI and Backend Developer

01/2024 – present
Bonn, Germany

- Developed backend infrastructure for Large Language Models (LLMs) and contributed to AI-driven projects.
- Designed and implemented software where users draw freehand, and an AI-generated image is produced, utilizing OpenAI's APIs.
- Responsible for full-stack development, integrating technologies like **Python, Flask, Docker, and OpenAI** models.
- Gained hands-on experience with cloud deployment, **RESTful APIs, containerization, and database management (PostgreSQL, MongoDB)**.
- Collaborated across teams to deploy scalable back-end solutions using **CI/CD pipelines**

Datametica

Data Engineer

Pune, India

- Engineered data pipelines in **Linux** for processing and optimizing large datasets, ensuring efficiency and scalability.
- Worked on designing ETL processes using **Python, Spark, and SQL** for transforming and managing data across diverse systems.
- Integrated various data storage solutions (e.g., **PostgreSQL, MongoDB, and AWS S3**) to enable smooth data workflows and real-time analytics.
- Developed and maintained data models, ensuring high data quality and compliance with business requirements.
- Collaborated with cross-functional teams to **deploy data-driven solutions**, leveraging tools like **Docker and Airflow** for automated workflows.

EDUCATION

Masters of Computer Science (Artificial Intelligence)

Brandenburgische Technische Universität

10/2022 – present
Cottbus, Germany

Specialization Subjects:

Information Retrieval

Data Warehousing

Bachelors of Computer Science

Pune University

05/2018 – 05/2022
Pune, India

Specialization Subject:

Data Mining, Fundamental of

SKILLS

Programming Language

Python, Linux, C++

Technologies

Flask, Django, Celery, Scripting, Docker, Kubernetes, Jenkins, Github Actions, Fast-API

Concepts

DSA, Data Extraction, Data Mining, Machine Learning, Agile Methodology, Waterfall Model, Database Management (DBMS), REST API.

LANGUAGES

English



German



B2

Hindi



PUBLICATIONS

[Directure](#)

[PeerBridge](#)

PeerBridge - Peer-to-Peer Process Manager

Developed a secure Python-based P2P file transfer system enabling encrypted, authenticated file transfers between two peers using HMAC-based authentication and password-protected zip encryption.

Key Features:

- **Secure Authentication:** HMAC ensures authorized file transfers between peers.
- **Encrypted Transfers:** Files are compressed and encrypted with a password for secure transmission.
- **Flexible Transfer Options:** Supports both directory and file transfers.
- **Automatic Port Reuse:** Efficient handling of network connections with port reuse.