# Aru Sharma

7452029206 | arusharmazxx000@gmail.com | https://www.linkedin.com/in/sharma-aru/ | github.com/staru09

## EDUCATION

**Panjab University** — Chandigarh, India
*Bachelor of Engineerng in Information Technology; CGPA 7.70/10.0* — *Oct. 2022 – Present*

**Little Scholars** — Kashipur, India
*Mathematics and Computer Science; (Central Board of Secondary Education); 95%* — *May 2019 – Jun 2021*

## EXPERIENCE

**OSS developer at Google Summer Of Code** — Jun 2025 – Sep 2025
*Mifos Initiative* — *Seattle, WA*
- Developed a **multi-agent bot** let users know the status of **Jira tickets**, questions related to **Slack discussions**.
- Developed a **full-stack web** application using **FastAPI, NextJs and Firestore** as database and Auth client.

**Software Engineering Intern at Summer Of Bitcoin** — May 2025– Aug 2025
*Bitcoin-dev-project* — *Manhattan , NY*
- Designed and prototyped **AI-assisted coding tools for Bitcoin** using small language models and domain-specific Retrieval-Augmented Generation (RAG).
- Improved **data pipelines** to ingest bitcoin related knowledge from Bitcoin Conference talks, correct and summarize them using LLMs

**Open Source Collaborator at EPIC Lab** — Oct 2024 – Jan 2025
*University of California* — *Berkeley, CA*
- Contributed **User Defined Functions**, LLM based data parsing and **OCR modules** to enhance the usability capability of DocETL.
- Added structured generation support for **Open-Source model** based backend using **Outlines** .

**LFX Mentee** — Sep 2024 – Dec 2024
*CNCF WasmEdge* — *Austin, TX*
- Developed a **RAG** based chatbot for code assistance using **opensource LLMs** with **Wasmedge runtime**.
- Created a pipeline to ingest data from **Github repository**, augmented it using QnA pairs, summary and then embed this into a **Qdrant vector database**.

## PUBLICATIONS

Robust Speech Emotion Recognition Across Diverse Datasets: A Comparative Study of Deep Learning and Transformer-Based Approaches for VoIP Applications,16th International Conference on Computing Communication and Networking Technologies, 2025 Accepted for publication.

A system to assist visually impaired people (Application Number:- 202531024657)

## PROJECTS

**Multi-Agent Researcher**  | *Python, Langraph Agents, OpenAI*
- Developed an autonomous multi-agent system that takes a user research query and generates a research summary.
- Orchestrated the agents using LangGraph, leveraging handoff mechanisms for task delegation and stateful interactions.

**Bitcoin-ASR-Bench** | *Python, Huggingface transformers, Moshi, Nvidia-Nemo, Ffmpeg*
- Benchmarked models from **Open-ASR leaderboard** for transcribing talks from **bitcoin conferences**
- Created scripts to automatically scrape channels for talks and **pre-process** them into wav files as needed by these models.

## ACHIEVEMENTS

- Selected for the first edition of **ESOC'25** under the project *Open-Source AI for Drug Discovery*, sponsored by **ecoSPECS** and the **German Center for Open-Source AI.**

- Ranked 15 globally on the **NTIRE Image Dehazing and Denoising challenge** at **CVPR 2024**.