Arun Mani J

Full Stack and Linux Engineer

A technology lover with interests in the fields of full stack web development and Linux system administration. As an enthusiast, I would like to work in roles that lets me contribute my knowledge to the betterment of the society we live.

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EDUCATION

- **B.E. Computer Science Engineering** Anna University, Regional Campus, Coimbatore (2024)

- **Class XII (CBSE) - 95.2%** Kendriya Vidyalaya, Mandapam (2020)

- **Class X (CBSE) - 91.6%** Kendriya Vidyalaya, Mandapam (2018)

PROJECTS

- **Aayra** - GStreamer, GTK, PyMuPDF, Python, SQLite

  - A GTK based eBook reader and audiobook player.
  - Learnt about native apps development and the encoding formats of audios, eBooks etc.

- **DoNotRepeatBot** - Python, Python Telegram Bot, PostgreSQL

  - A Telegram bot that lets users save and share messages and media directly via inline queries.
  - Learnt about Telegram's inline queries, full text search of PostgreSQL tables.

- **Aashii** - Python, Python Telegram Bot, PostgreSQL

  - A Telegram bot that lets members of a group contact its admins and provides admin utilities like broadcasting messages, replying known questions, spam blocking etc.
  - Learnt about optimization and abstraction of data.

EXPERIENCE

Full Time

- **Linux Software Development Engineer at PearTree (January 2024 - Current)**

  - Worked on feature requests in Phosh (a graphical user interface designed for mobile and touch-based Linux devices) and its ecosystem.
  - Worked on mobile Linux technologies and making apps for them.

Internship

- **Linux Software Development Engineer Intern at PearTree (August 2023 - December 2023)**

  - Responsible for contributing to Phosh (a graphical user interface designed for mobile and touch-based Linux devices) and its ecosystem.
  - Worked on feature requests by end-users.

University

- **AU-SMART (Anna University Students' Monitoring And Reporting Tool)**

  - Developed an app that allows students to anonymously report the absence of staffs directly to the Dean.
  - Used by around 700+ students to secretly inform Dean without disclosing their personal details.

- **DAMS (Dynamic Attendance Monitoring System)**

  - Developed an app to let departments monitor the attendance of students of Anna University, Regional Campus, Coimbatore and extract reports.
  - Used by the Dean, Academic Coordinator and the Executive Assistants of all departments to view the status of students' presence.

- Around 700+ records are inserted and viewed daily by the different officials of the Campus.

- **Kiosk**

    - Designed an information kiosk for Anna University, Regional Campus, Coimbatore.
    - It displays the latest information, Thirukural and news bulletin.
    - Stays 24/7 up-to-date by automatic content updates.

- **AURCC API**

    - Created an API server for Anna University, Regional Campus, Coimbatore.
    - Developed using FastAPI and unifies the campus's multiple service frontends under a single API.
    - The central API is used by 1000+ users consisting of students, staffs, IoT devices to provide various functionalities.

- **DevOps at Anna University, Regional Campus, Coimbatore**

    - Currently maintaining the DGATE Cell's server at Anna University, Regional Campus, Coimbatore.
    - Configured the server from scratch by installing Debian GNU/Linux, setting up Caddy, firewalld, Keycloak and automatic backups.
    - The server is responsible for hosting and maintaining services like the website, services, database and API server.
    - Runs 24/7 with role-based hierarchical authorization to ensure selective and validated access to the services.

Non Profit and Open Source

- **Full Circle**

    - Made the website for Full Circle Magazine, an independent magazine for the Ubuntu Linux community.
    - Migrated the website from WordPress to Hugo, converting around 200+ pages to Markdown via homebrewed script.

ACHIEVEMENTS

- **First Prize in Safetython 2023**

    - Organized by Uyir Foundation in collaboration with Tamil Nadu Police.
    - Proposed the idea of AI powered traffic regulatory system.

- **First Prize in Road Safety Ideathon 2023**

    - Organized by KPR Institute of Engineering and Technology.
    - Proposed the idea of blackbox based accident reconstruction and emergency vehicles routing.

- **Best Student Award (2022)**

    - Awarded by Anna University, Regional Campus, Coimbatore for the best overall performance in B.E. CSE 2020 batch.

- **Tech Wizard (2018 & 2019)**

    - Awarded by my school for creating a quiz website on Indian freedom struggle (2018) and a maze game (2019).

- **Merit Certificate (2018)**

    - Awarded by CBSE for securing 99 out of 100 in Hindi in AISSE.

SKILLS

- **Programming** - Python, JavaScript, C, GDScript, Rust.

- **Databases** - PostgreSQL, SQLite.

- **Frameworks** - GStreamer, GTK, Hugo, PyMuPDF, Nuxt, Python Telegram Bot, TailwindCSS, Vue.js.

- **Systems** - Caddy, Debian GNU/Linux, Keycloak, Podman.

- **Tools** - GNU Emacs, Godot.

BOOKS

- [Problem Solving with Python Programming](#) *Preethi J*, *Akila K* and *Arun Mani J*; ISBN:978-93-88005-48-7, Yes Dee Publishing Pvt Ltd.

POSITIONS

- **Class Representative (2020 - 2021)** Acted as class representative during the first year in B.E. course.

- **Discipline Incharge (2018 - 2020)** Held the role of maintaining discipline in school.

- **Moderation of Telegram Communities** An active admin of various official and semi-official groups of famous open source projects including Fedora Linux, Linux Mint, PostgreSQL, Python Telegram Bot.

PRESENTATIONS

- [State of Stateless on DebConf 2023](#) A talk about immutability, reproducibility and declarative configurable in Debian.

- [DebDay22 Trichy](#) A talk about free and open-source technology and how students can contribute to it.

- [Debian In Indian Institutions on MiniDebConf 2021](#) A talk on using Debian GNU/Linux in Indian institutions.