Arun Mani

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Software Engineer specializing in TypeScript SDKs for local-first AI, Linux mobile and open-source ecosystems. Experienced in integrating machine learning runtimes with JavaScript environments and implementing multimedia pipelines using Rust, C, and GTK.

Experience

Tether May 2024 – Present
Software Development Engineer

QVAC

- Part of QVAC SDK team, decentralized local-first AI inference and solutions.
- Interfaced MLC LLM with the Bare JS runtime, enabling LLM models to run across Windows, macOS, Android, and iOS.
- Added GStreamer support to a Whisper-based transcription library to enable on-the-fly audio decoding.
- Handled the reorganization of QVAC SDK into inference and client packages.
- Added feature to fetch models from fallback sources when P2P registry is unavailable.

Phosh

- Core contributor to Phosh, a phone shell for Linux mobiles and tablets.
- Developed XDG Desktop Portal Phrosh, a Rust based portal for Phosh to handle system requests like file selection, user information etc.
- Added support for custom quick-setting and status-icon plugins, allowing for end-user shell customization.

PearTree (merged with Tether) Jan 2024 – Apr 2024
Software Development Engineer

- Implemented application grouping in Phosh, allowing users to organize apps into custom folders.
- Rewrote the quick-settings panel in Phosh to be responsive, ensuring it adapts to different mobile screen sizes and orientations.

PearTree Aug 2023 – Dec 2023
Software Development Engineer Intern

- Built the Wi-Fi selection interface in Phosh, allowing users to choose access points directly from the quick-settings menu.

Education

B.E. Computer Science Engineering 2024
Anna University Regional Campus, Coimbatore

First Class with Distinction.

Class XII CBSE 2020
Kendriya Vidyalaya Mandapam

Aggregate: 95.2% (476/500).

Technical Skills

Programming	Rust, C, Python, TypeScript, JavaScript.
Frameworks	GTK, GLib, GStreamer, FastAPI, Vue, Nuxt.
Tools	Podman, PostgreSQL, SQLite.
Languages	English, Tamil, Hindi.
Soft skills	Technical writing, open source collaboration.

Books

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

Achievements

- **Winner, Safetython (2023)** Awarded by Uyir Foundation and Coimbatore City Police for an AI-based traffic management software proposal.
- **Winner, Road Safety Ideathon (2023)** Awarded by KPR Institute of Engineering and Technology for a black-box based accident analysis system concept.
- **Best Student Award (2022)** Awarded by Anna University Regional Campus Coimbatore for overall performance in the B.E. CSE 2020 batch.