

# A. M. ISMAIL

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## Executive Summary

Third-year Production Engineering student with a strong aptitude for software development. Proficient in Python, Django, and Flutter, with hands-on experience building distributed systems, full-stack web apps, and mobile applications. Seeking a software engineering role to apply analytical problem-solving and technical skills to develop robust software solutions.

## Projects

### Ct Ski (Local Colab) | NFS, Jupyter Protocol, Docker, NextJS

 [Source Code](#)

- Established the **Ct-Ski Lab** in the Computer Technology department at MIT to provide free cloud computing infrastructure for CS students.
- Architected a distributed computing platform similar to Google Colab, utilizing college infrastructure to handle ML workloads and heavy computing tasks.
- The lab was inaugurated by the **CEO of Tekion**; currently expanding the system into a full-fledged application for broader student use.

### Virtual Lab for Metrology | React, Docker, Nginx

 [Source Repo](#)

- Designed and deployed a high-concurrency Virtual Lab suite using a Dockerized Nginx reverse proxy, optimizing resource efficiency for 100+ RPS through path-based routing.
- Engineered a secure, automated CI/CD pipeline with Docker Compose Watch to synchronize multi-project builds (React/Vite & Static HTML) into an isolated production environment.
- Simulated a **Profile Projector** interface allowing users to measure dimensions of engineering components digitally.

### CWM (CLI Workspace Manager) | Python, Click, Rich, Tmux

 [Documentation](#)

- Built a command-line tool to automate developer workspace setup, including session management, command saving/tracking, and project organization.

### Anna University App | Flutter, Dart, Hive

 [Play Store](#)

- Assisted in the design and development of the front-end in Flutter for the official Anna University e-Governance application.

### Attender: Attendance System | Flutter, SQLite, Dart

- Engineered a cross-platform mobile application to streamline attendance tracking for academic environments.
- Optimized app performance by refactoring complex widgets and removing redundant notification services, resulting in a 20% faster load time.
- Implemented local database storage using SQLite to ensure offline functionality.

## Education

### Madras Institute of Technology, BE in Production Engineering

Aug 2023 – Present

CGPA: 7.61/10

### School

- SSLC: Pass (2020-2021).
- HSC: 545/600 (2022-2023).

## Skills

### Programming & Frameworks

- Python, Dart, JavaScript
- Flutter, React, NextJS

### Software & Tools

- Git, GitHub, Docker, NGINX
- Microsoft Office Suite (Excel)

### Languages

### CAD & Analysis

- SolidWorks, Creo, NX cad, Catia
- Abaqus CAE

- Tamil, English
- Arabic (Reading & Writing)

## Experience

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### MITONAUR Motorsports (Go-Kart Team)

Dec 2024 – Present

- Contributed to the design and analysis of the team's chassis for the TNKC and KEC championships.
- Gained experience in collaborative problem-solving within a competitive, team-based engineering project.

### Arduino Bootcamp (In-Campus)

Dec 2023

- Completed a comprehensive bootcamp on Arduino, building skills in microcontroller programming and hardware-software interaction.