# Saminathan M

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## Professional Summary

Aspiring software engineer with hands-on experience in scalable full-stack development, automation, and AI-enabled applications. Passionate about building human-centered products, solving real-world problems, and working in collaborative environments. Motivated to contribute to high-performance systems that make a meaningful impact.

## Education

**AGNI College of Technology, Chengalpattu**
*Bachelor of Engineering (B.E.) in Electronics and Communication Engineering*
2021–2025                                                                                                   **CGPA:** 7.6

## Work Experience

**Tamil Nadu Cyber Crime Wing, Chennai**
*Intern*                                                                                      *January – February 2024*

- Conducted cybersecurity investigations and supported real-time digital threat analysis.
- Built a review analysis system using Python achieving 95% accuracy to improve digital safety.
- **Tech Stack:** Python, Flask, HTML, CSS, JavaScript

**Learn and Build, Remote**
*Intern*                                                                                        *August – October 2023*

- Created responsive UIs reducing load times by 40% and boosting user engagement.
- Implemented interactive features and ensured optimal performance.
- **Tech Stack:** HTML, CSS, JavaScript, Node.js, MongoDB

## Key Projects

**Brain-Controlled Human-Computer Interaction System**

- Designed a hands-free computer control system using EEG signals.
- Achieved 92% classification accuracy via SVM, enabling real-time interaction using PyAutoGUI.
- **Tech Stack:** Python, Arduino, PyAutoGUI

**AgriBot: Multilingual AI Assistant for Farmers**

- Developed a multilingual web application for farmers with modules for soil testing, pest detection, crop management, and government schemes.
- Integrated dynamic translation and animations to assist low-literacy users across multiple Indian languages.
- **Tech Stack:** HTML, CSS, JavaScript, Python (backend), JSON, Flask (planned integration), SQL

**Object and Text Detection Application** (Live Link)

- Created an accessibility app for visually impaired users.
- Achieved 90% text recognition and 85% object detection accuracy.
- Added text-to-speech functionality for real-time feedback.
- **Tech Stack:** Python, OpenCV, PyTesseract, YOLO

**Application Info Extractor with Flask** (Live Link)

- Built a web scraper for extracting and analyzing application data.
- Achieved 98% data accuracy and reduced extraction time by 50%.
- Enhanced scraper logic for better efficiency and flexibility.
- **Tech Stack:** Python, Flask

## Skills

**Languages:** Python, Java, C
**Web Development:** HTML, CSS, JavaScript, Node.js
**Databases:** MongoDB, SQL
**AI/ML:** OpenCV, YOLO, PyTesseract, Scikit-learn
**Tools:** Git, GitHub, Arduino, PyAutoGUI
**Practices:** Scalable architecture, Automation, Testing, Cloud-first development (intro level)

## Certifications

- Frontend Development – IBM
- Java Programming – Hackerrank
- Python Programming – Hackerrank
- SQL – Hackerrank
- React Basics – IBM
- Learning Analytics Tools – NPTEL
- Robotic Process Automation (RPA) – UiPath

## Publication

- **SCOPUS Journal:** Intelligent Traffic Signal System for Ambulance Priority Using IoT

## Achievements

- Winner – Honeywell Youth India Teckathon: Built a Travel Personalization Bot
- 3rd Place – Arduino Botics by IIT Varanasi
- Finalist – TNCPL (Guvi) & Vultr Cloud Challenge (Geeks for Geeks)
- **NIRAL Thiruvizha:** Tamil Nadu Govt - Advanced to next round with AgriBot, among top 1000 teams from 28,000+ students