Chathura Prasasdh

Software Developer and Automation Engineer

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Professional profile

Software developer working across desktop applications, Android products, computer vision and workflow automation. Brings practical mechanical engineering experience in machine design, PLC control and embedded hardware. Develops independent products through AI-assisted engineering, hands-on iteration, testing and release packaging.

Technical skills

Languages and applications: Python, C++, C#, JavaScript, TypeScript, React, Electron, PySide6, FastAPI, Android, Capacitor, Firebase and Godot.

Vision and intelligent systems: OpenCV, YOLO, OCR, image processing, object detection, pose tracking, ONNX Runtime, TensorRT and AI workflow integration.

Automation and integration: Selenium, REST APIs, desktop automation, PLC ladder logic, Arduino, Raspberry Pi, local networking and device integration.

Selected software projects

EdgeLink | Windows and Android device connectivity

Electron, JavaScript, Win32 and Android | Release 1.2.0

- Developed a connected-device workflow for mouse and keyboard control, clipboard sharing, file transfer and phone viewing across a local network.
- Integrated paired-device management and encrypted transport; prepared Windows and Android packages with local test coverage.

Selli | Business and personal organization

React, TypeScript, Capacitor and Firebase | Release 1.5.15

- Built an Android application for ledgers, budgets, orders, invoices, payment calendars and data exports.
- Worked on account synchronization, offline data behavior and signed release packages for direct distribution and alpha testing.

Tallyra | Android camera and vision toolkit

CameraX, Jetpack Compose, ML Kit and local vision models | Release 2.2.0

- Developed camera tools for object, people and parts counting, OCR, QR scanning, gesture interaction and supervised attendance workflows.
- Combined native camera interfaces with local model inference; prepared a signed Android package and automated JVM tests.

Additional project work

AirWheel | Gesture steering controller for Windows

Python, PySide6, OpenCV, YOLO11, TensorRT and vJoy | Release 0.3.7

- Developed calibrated one-hand and two-hand steering, pedal gestures and gear controls with virtual DirectInput output.

Ridgeline GT | Windows racing prototype

C#, Godot and Windows DirectInput

- Developed a time-attack driving prototype with the original Silvercrest circuit, vehicle dynamics, driving assists and configurable wheel input for testing AirWheel.

Brushboarding | Multi-camera monitoring prototype

Python, FastAPI, React, TypeScript, OpenCV and YOLO11

- Built pose and segmentation workflows with calibration for each camera source and a dashboard accessible over a local network.

Automation and data tools | Selected freelance portfolio work

- Created a multi-channel YouTube publishing application with upload queues, AI-assisted descriptions and hashtags, and official API integration.
- Developed a desktop video workflow combining script assistance, effects, music, voiceover and publishing tools.
- Built a property research dashboard combining parcel records, map imagery, search filters and building-analysis controls.

Machine design and devices | Mechanical engineering and automation projects

- Project work includes computer-vision-assisted welding, perimeter monitoring with cameras, lights and speakers, agricultural drones, automated farming systems and robotic handling of coconuts and bananas.

Professional experience

Automation Engineering | MAAS | Part-time

June 2024 - April 2025

- Developed PLC ladder logic and contributed to machinery design and process improvements.
- Worked on conveyor, pick-and-place, labelling and packaging applications.

Education

BSc in Software Engineering | SLIIT | 2020

Languages

English