

Toby Purbojo

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| 📍 Debrecen, Hungary

Education

MSc in Data Science

University of Debrecen

2025 – Present

Hungary

- **Coursework:** ML basics, Multivariate Statistics, and Cloud Computing.

BSc in Mathematics

Parahyangan Catholic University

2020 – 2024

Indonesia

- **Grade:** 3.57 / 4.00

Experience

Research Assistant

Parahyangan Catholic University

2023 – 2024

- Summarized machine learning methods for mathematics student studies.
- Developed a Python algorithm using reinforcement learning concepts to automate thesis defense examiner assignments.
- Supported drone-based wave image capture for wave simulation research.

Projects

Personal Website

[GitHub](#) | [Website](#)

Jan. 2026

- Notion-synced notes and a second-brain hub for projects.

PDF Food Label Extraction

[GitHub](#)

Nov. 2025

- Extract food label informations from pdf file.
- Methods: OCR + extraction pipeline, FastAPI + React.

Live Sign Language Translation

[GitHub](#)

June 2025

- Translate sign language via webcam into written texts.
- Methods: Pose estimation + sequence modeling + LLM refinement.

Publications

Comparing preprocessing methods for pose-based sign language recognition using GRU and LSTM models

Purbojo, T., & Wijaya, A. 2025

Advance Sustainable Science, Engineering and Technology, 7(2), 02502017

DOI: <https://doi.org/10.26877/sj5scb03>

Recognitions

Stipendium Hungaricum Scholarship Awardee 2025 – Tempus Public Foundation.
Best Presenter Award (3rd Place) – Thesis Day, Parahyangan Catholic University.
Semifinalist – LOGIKA UI 2024 Statistics Team Competition.
Semifinalist – LOGIKA UI 2023 Statistics Team Competition.

Certifications

Azure Data Fundamentals (DP900) – Microsoft.
Deep Learning Fundamentals – NVIDIA.
International Specialist in Data Modelling (Python) – PASAS Institute.
International Specialist in Data Visualization (Tableau) – PASAS Institute.

Skills

Languages: Python, R, SQL (PostgreSQL)

Tools: Notion, GitHub, LaTeX.

Volunteering and Organizational Experience

Chairperson

2023 – 2024

National Math Competition 2022 - Parahyangan Catholic University

- Led a 72 member organizing committee across 8 divisions for a national online mathematics competition with 300+ participants.
- Oversaw year long planning and execution, ensuring smooth coordination, timelines, and event delivery.

Training Assistant

June 2021

Yayasan Amal Bakti Ibu Indonesia

- Assisted in a training program attended by 80+ kindergarten principals.
- Guided principals in hands-on use of robotics- and coding-based STEAM educational toys.