# BARTŁOMIEJ TEDYS

Software Developer | Data, Machine Learning & Geospatial Systems

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## PROFILE

First-Class Honours graduate in Software Development (MTU, 2025) with experience across full-stack web development, applied machine learning, and geospatial data analysis. Built and deployed a computer vision pipeline for automated tree detection from aerial imagery as a final year thesis, and currently combine freelance web development with AI data annotation work. Relocating to the Netherlands and open to roles in software development, data engineering, or applied ML.

## TECHNICAL SKILLS

**Languages:** Python, JavaScript/TypeScript, Java, C++, C, SQL

**Web Development:** React, Next.js, Node.js, HTML/CSS, REST APIs, Supabase, Tailwind CSS

**Data & Machine Learning:** Pandas, scikit-learn, PyTorch, TensorFlow, NLTK, Instance Segmentation

**Geospatial:** QGIS, GDAL, Rasterio, spatial data analysis, aerial and satellite imagery processing

**Tools & Other:** Git, Docker, Linux, Agile/Scrum, Azure (in progress)

## EXPERIENCE

**Senior Data Specialist** | *Outlier AI* Jul 2024 – Present

- Promoted to Senior Reviewer across multiple AI training projects, ensuring data quality for large-scale model development
- Annotate and evaluate training data spanning UI/UX, multilingual content, and software development topics, supporting multimodal model development across text, image and speech
- Lead quality assurance on multilingual datasets, maintaining annotation standards across international projects

**Web Developer (Freelance)** | *M&L Home Builds* Jan 2025 – Present

- Designed and built a website with a custom backend API for the image gallery, plus SEO optimisation; increased client leads by 300%
- Built a separate full-stack contract and quotation tool with Next.js, Supabase and Resend for automated contract signing

**Software Development Intern** | *Caeli, Amsterdam* Feb 2024 – Jul 2024

- Trained an instance segmentation model on a self-built dataset to detect individual tree canopies from aerial imagery
- Analysed satellite imagery for environmental monitoring, working independently in a fast-paced startup environment
- Used QGIS for spatial data analysis

**Mobile App Developer (Scrum Master)** | *Binqy, Amsterdam* Sep 2023 – Dec 2023

- Built a cross-platform mobile app in React Native for a real client as part of a university exchange project
- Acted as Scrum Master, running daily standups and sprint retrospectives for an international team

## KEY PROJECT: AUTOMATED TREE DETECTION (FINAL YEAR THESIS)

- Winner, “Most Positive Environmental Impact” – MTU Innovation Competition
- Expanded the dataset from the Caeli internship five-fold and trained three instance segmentation models, achieving 78% detection accuracy with the best performer through a comprehensive evaluation process
- Processed 500+ km² of aerial imagery and deployed the pipeline at scale using QGIS, correlating tree coverage with air quality data across Dutch neighbourhoods
- Demonstrated the technical feasibility of replacing the bulk of manual tree surveying with automated detection, projecting up to a 95% reduction in survey time as the models are further refined
- Worked across Windows, Ubuntu and cloud notebooks to accommodate the different requirements of each model

## EDUCATION

**BSc (Hons) Software Development, First-Class Honours | Munster Technological University, Ireland** 2021 – 2025

- Exchange semesters at HVA Amsterdam: Mobile Application Development, Big Data Processing
- Relevant modules: Machine Learning, Database Design, Distributed Systems Programming, Security for Software Systems

## LANGUAGES

English and Polish (native/bilingual)