

PROFILE

A meticulous AI & Computer Vision Specialist with a Master's in Artificial Intelligence and professional expertise in deep learning, image processing, and segmentation. Proven ability to develop and optimize solutions for complex CV challenges including real-time object detection, biomedical image analysis, and remote physiological measurement. Combines strong theoretical knowledge with practical software engineering skills to deliver robust, production-ready systems.

PROFESSIONAL EXPERIENCE

- **Computer Vision Engineer** Rome, IT
Technolife *Feb. 2025 - Present*
 - **Real-Time Object Detection & Tracking:** Optimized models using OpenCV for robust performance in embedded environments.
 - **Advanced Segmentation & Analysis:** Fine-tuned pre-trained CNNs for specialized tasks including fall detection and fraud detection from document images, focusing on accurate feature extraction.
 - **MLOps & Deployment:** Designed and implemented CI/CD pipelines (YAML) to automate testing, validation, and deployment of machine learning models.
- **Software Engineer** Remote
Teoresi Spa *Apr. 2022 - Jan. 2025*
 - **Biomedical Image Processing Suite:** Built a high-performance C++/Qt application with OpenCV for processing and auto-stitching DICOM medical images, enhancing diagnostic workflows.
 - **Computer Vision Algorithms:** Developed custom algorithms for image manipulation and analysis, integrated into desktop and embedded systems with Qt5/Qt6 GUIs.
 - **Project Leadership:** Led desktop application development as SCRUM Leader, ensuring Agile methodologies were followed for on-time delivery.
- **Software Engineer Internship** Milan, IT
Zuru Tech *Nov. 2021 - Mar. 2022*
 - **Procedural 3D Content Generation:** Developed tools for parametric generation of architectural models (BIM), involving algorithmic shape manipulation and rule-based systems.
 - **Game Engine Development:** Extended C++ Entity Component Systems within Unreal Engine 4, contributing to core engine functionality.
- **Master Thesis Internship** Utrecht, NL
Teoresi Spa *Mar. 2021 - Nov. 2021*
 - **Remote Physiological Measurement:** Trained a CNN model to accurately estimate Heart Rate from facial video footage, a core project in telemedicine applications.
 - **Facial Analysis Package:** Developed and published **FaceManager**, a Python library for robust facial feature extraction and analysis.

KEY PROJECTS

- **NrPPG-NNET: Remote Heart Rate Estimation:** End-to-end deep learning system using CNNs and spatial-temporal representation for non-contact HR measurement. Demonstrates expertise in signal-from-video extraction.
- **3D Shape Retrieval System:** Multimedia retrieval system using the Qt framework. Featured custom-engineered similarity metrics for 3D shape comparison, relevant to visual similarity tasks.
- **FaceManager Python Package:** Developed a comprehensive package for facial feature extraction, demonstrating practical library creation for computer vision tasks.
- **Language Bias Visualization:** Research project utilizing word embeddings (Word2Vec, GloVe) on Reddit data to analyze and visualize semantic shift and bias over time.

EDUCATION

- **Utrecht University** Utrecht, NL
Master of Science in Artificial Intelligence Sept. 2019 – Jul. 2021
- **London Metropolitan University** London, UK
Bachelor of Science (Hons) in Computer Games Programming Sept. 2015 – Jul. 2018

TECHNICAL SKILLS

Computer Vision & ML	OpenCV, TensorFlow, PyTorch, Keras, Image Segmentation, Object Detection/Tracking, Generative Models, Feature Extraction, NumPy, SciPy, Pandas.
Programming Frameworks & Libraries	Python (Advanced), C++ (Advanced), R, C#, YAML. Qt5/Qt6 (QML), Unreal Engine 4, Unity, OpenGL.
Visualization	Matplotlib, Seaborn, Bokeh.
Methodologies	MLOps, CI/CD Pipeline Design, Agile/SCRUM, Software Development Lifecycle.