



Omar Saleh

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Omar Saleh received the B.Sc. degree in Informatics (2023) and the Ing. (M.Sc.) degree in Software Engineering (2025), both from VSB – Technical University of Ostrava, Czech Republic. His master's thesis, supervised by Svatopluk Štolfa, addressed bidirectional generation and validation of software code and requirements using artificial intelligence. Before his doctoral studies he worked as a software developer on commercial web and e-commerce systems (Python, cloud, and API integration).

He is currently a second-year, full-time Ph.D. student in Informatics and Computational Science at the Department of Computer Science, VSB – Technical University of Ostrava, under the supervision of Prof. Jan Platoš. His doctoral research focuses on deep learning for automated inspection of photovoltaic power plants from UAV imagery. He is responsible for the machine-learning side of a multi-site inspection dataset built in cooperation with the university's Department of Geoinformatics: annotation workflow design, tiled object detection with YOLO and Faster R-CNN in PyTorch, and per-class, per-environment evaluation of detectors on RGB and thermal-infrared data.

He also serves as a teaching assistant in the course *Fundamentals of Machine Learning* at his department. His broader interests include computer vision, long-tailed learning, and applied machine learning for renewable-energy operation and maintenance.

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