MATIAS TURKULAINEN

PHD STUDENT

matiasturkulainen@gmail.com
(+358) 40-7772948

Profile

PhD student at Aalto University focusing on 3D reconstruction.

Education

Aalto University

Espoo, Finland

PhD student, Department of Computer Science

2024-2028

ETH Zurich

Zurich, Switzerland

MSc Robotics, Systems and Control

2021 - Nov, 2024

Relevant Coursework: Vision Algorithms for Mobile Robots 5.5/6, Image Analysis and Computer Vision 5.25/6, Robot Dynamics 5.25/6, Introduction to Machine Learning 5.25/6, Computational Models of Motion 5.25/6, Computer Graphics, Machine Perception, Probabilistic Artificial Intelligence, and Seminar in Computer Vision.

University of Glasgow

Glasgow, Scotland

BEng (Hons) in Mechanical Engineering with Aeronautics

2017-2021

Grade: 1st class honours. Cumulative GPA: 20.5/22. Bachelor's project: "Comparison of SLAM Algorithms for Drone Operations" using ROS + Gazebo simulations.

Experience

Research Assistant

Aalto University

Dec 2023 - May 2024

Project related to 3D Gaussian splatting. Contributed to gsplat.

Research Intern

VTT Technical Research Centre of Finland

April 2023 - Nov 2023

Working on inverse rendering. Project related to fusing rgb + hyperspectral imaging into hyperspectral radiance fields for material classification in 3D. Contributing to Nerfstudio and BARF-nerfstudio.

Research Assistant

Computer Vision and Learning Group (VLG), ETH Zurich

Feb 2022 - July 2022

Project related to human pose estimation from images. Publication: <u>EgoBody</u>. Guided by doctoral student Siwei Zhang (Doctorate at D-INFK, ETH Zurich): <u>siwei.zhang@inf.ethz.ch</u>.

Drone Systems Trainee

Nokia Jun 2020 - Aug 2021

R&D intern at Nokia working with LTE connected drones. Worked on camera based precision landing with Jetson Nano and OpenCV.

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Python C++ CUDA

Linux Blender Packages: PyTorch, OpenCV, Open3D

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Website: https://maturk.github.io

<u>GitHub</u> <u>LinkedIn</u> <u>Scholar</u>

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