Manohar Kuse

Computer Vision / ML Engineer

Zürich, Switzerland

About Me

Senior Computer Vision Engineer with a PhD in Robotics and 5+ years of industry experience building real-time SLAM, 3D reconstruction, and ML systems for robotics and AR. Skilled at delivering scalable cloud deployments and maintaining production-grade pipelines.

I thrive in collaborative teams, enjoy technical discussions, and value knowledge sharing. I'm easy-going, curious, and driven by a desire to build meaningful, real-world systems.

Currently seeking a senior technical role that offers opportunities to learn, grow, and contribute to impactful products at the intersection of ML, vision, and scalable deployment.

Contact

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📍 LinkedIn Profile

Personal

Indian citizen
Open B-Permit in Switzerland

Languages:
- English (Fluent)
- German (A2)
- Marathi, Hindi

Hobbies:
Skiing, Hiking, Sailing, Reading

Working Experience

Senior Computer Vision Engineer   Jan 2022 - Dec 2024
Magicleap, Zürich, Switzerland
- Visual-Inertial SLAM - KPI reporting, performance analysis
- Relocalization System for headpose
- 3D Kinematics for sensor fusion on non-inerial base
- Production code base maintenance

Robotics Engineer   Apr 2020 - Nov 2021
Rovenso AG, Fribourg, Switzerland
- Docking, Path planning and controller for ground robot
- Configuration management system for deployment
- Robotics UI designing
- Sensor fusion (Lidar+IMU, Lidar+Wheel encoders, GPS+IMU)

Skills

Programming Languages
- C++, Python — Proficient in efficient, production-ready code; experience with performance-critical and high-level scripting.

Machine Learning & 3D Computer Vision
- **Frameworks**: Tensorflow, keras, pytorch
- **Libraries**: OpenCV, OpenGV, PCL(Point Cloud Library)
- **Specializations**: Feature extraction, relocalization, pose estimation, 3D reconstruction, SLAM, NeRF, Gaussian Splatting

Robotics
- **Tools**: ROS, RViz, Ceres Solver, re:run, GTSAM
- **Experience**: Real-time SLAM pipelines, sensor fusion, trajectory planning and optimization

Backend & DevOps
- Flask (RESTful API development), Docker, Git, MongoDB, SQL
- DevOps: CI/CD with GitHub Actions, Dockerized microservices
- Google Cloud Platform (GCP) – Compute Engine, Cloud Storage, BigQuery, Cloud SQL

Softskills
- Curious and fast learner, Analytical and systems-minded.
- Adaptable, collaborative teamwork.

Education

Doctoral Studies (Ph.D)   Aug 2013 - Dec 2019
The Hong Kong University of Science and Technology (HKUST)
- Thesis: "Techniques for a failsafe Visual Inertial SLAM System"
- Learning to relocalize using streetview data
- Drone Kinematics and Control
- Web Frontends for KPI monitoring

Bachelor of Technology (B.Tech)   2019 - 2020
The LNM Institute of Information Technology, Jaipur, India
- Communication and Computer Engineering

Select Github Projects

*Both projects related to my doctoral thesis (~2019)

Kidnap recovery in VI-SLAM
- Relocalization in visual-inertial SLAM system
- Learned image descriptors
- 3D pose and alignment

https://github.com/mpkuse/cerebro

Image Descriptor Learning
- Image level descriptors
- trained using street view
- Deep neural network architecture

https://github.com/mpkuse/cartwheel_train