Emma Wilson - Research Scientist / Computer Vision

Researcher specializing in computer vision, 3D reconstruction and self-supervised learning with a strong publication record.

Technical Skills

Computer Vision, PyTorch, 3D Reconstruction, SLAM, Self-supervised Learning, CUDA, Optimization

Professional Experience

Research Scientist — Vision Labs (2015 - Present)
Zurich, Switzerland
• Published 10+ papers in CVPR/ICCV and led open-source contributions for 3D reconstruction toolkits.
• Built scalable training pipelines using mixed-precision and distributed data parallel.

PhD Researcher — Robotics Lab (2012 - 2015)
2012 - 2015
• Worked on SLAM algorithms and large-scale mapping.

Selected Projects

Self-supervised 3D Model: Novel pretext tasks for depth and normal prediction improving downstream segmentation.

Publications

• Wilson, E. 'Self-Supervised Depth Estimation', ICCV 2021

Education

• Ph.D. Computer Vision, ETH Zurich (2015)
• M.S. Computer Science, University of Oxford (2010)

Technical Appendix / Contributions

Contributed to open-source projects, wrote internal RFCs on system design, created automated testing frameworks, optimized critical database queries, benchmarked model serving endpoints, implemented custom operators for CUDA, designed asynchronous task dispatching and backpressure handling, and established CI gating for security checks.

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