

Viet Pham

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Education

Technical University of Munich (TUM) , M.Sc. in Computer Science Focus: AI in Medicine, Computer Aided Medical Procedures, Computer Vision	Munich, BY, DEU Oct 2023 – Mar 2026
Johns Hopkins University (JHU) , Master's Thesis in Computer Science Topic: Multi-Modal Imitation Learning for Robotic Partial Nephrectomy	Baltimore, MD, USA Apr 2025 – Sep 2025
Karlsruhe Institute of Technology (KIT) , B.Sc. in Computer Science (Minor: EE) Thesis: Reinforcement Learning in DefKit for Laparoscopic Tissue Retraction	Karlsruhe, BW, DEU Oct 2017 – Sep 2023

Experience

Johns Hopkins University , Intelligent Medical Robotic Systems and Equipment Lab <i>Visiting Graduate Scholar</i> - Conducting research for Master's thesis; publication planned for CARS 2026 - IEEE/CVF WACV 2026 accepted publication as co-author	Baltimore, MD, USA Apr 2025 – Sep 2025
Carl Zeiss AG , Corporate Research Team Karlsruhe – Medical Robotics <i>Working Student - Research & Innovation</i> - Collaborative research with the AI in Medicine (AIM) Lab at TUM: Weakly Supervised Surgical Instrument Segmentation; publication under review - Software Engineering for reinforcement learning in medical simulations	Karlsruhe, BW, DEU Oct 2023 – Mar 2025
<i>Intern - Research & Innovation</i> - IEEE ICRA 2024 accepted publication as co-author - Setting up and conducting experiments in the medical robotics lab - Training reinforcement learning agents in medical simulations - Implementing software and hardware for medical robotics experiments	Jun 2023 – Sep 2023
Karlsruhe Institute of Technology , Health Robotics and Automation (HERA) Lab <i>Student Research Assistant</i> - Performing semantic image segmentation on surgical images using deep learning - Porting ETH Zurich's magnetic continuum robot (m-CR) SOFA simulation for RL	Karlsruhe, BW, DEU Jun 2022 – Mar 2023
apic.ai GmbH <i>Working Student – Software/Data Engineer</i> - Developing ETL pipelines for video data analysis using AI, processing over 35 TB/yr - Optimizing Kubernetes cluster including up to 256 NVIDIA GPU instances (GKE, EKS)	Karlsruhe, BW, DEU Jan 2020 – Mar 2022

Publications

Domain-Agnostic Weakly Supervised Surgical Instrument Segmentation Rebekka Charlotte Peter, Doan Xuan Viet Pham, et al., Franziska Mathis-Ullrich	Under Review
Highly Accurate Real-time Surgical Scene Rendering using Gaussian Surfels Idris O. Sunmola, et al., Doan Xuan Viet Pham, Axel Krieger IEEE/CVF Winter Conference on Applications of Computer Vision (WACV 2026)	Accepted doi:10.48550/arXiv.2503.04079
Lens Capsule Tearing in Cataract Surgery Using Reinforcement Learning RC Peter, S Peikert, L Haide, DXV Pham, et al., F Mathis-Ullrich IEEE International Conference on Robotics and Automation (ICRA 2024)	Aug 2024 doi:10.1109/ICRA57147.2024.10611714

Skills

Programming: Python, C#, C++, ROS

Technologies: Reinforcement / Imitation Learning, Medical Robotics, Computer Vision, PyTorch, Docker

Languages: German (native), Vietnamese (native), English (fluent)