

Mengkun She

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EDUCATION	Christian-Albrechts-Universität zu Kiel, Kiel, Germany Nov 2020- Present <ul style="list-style-type: none">Ph.D. in Computer ScienceTopic: Underwater Refractive Camera Calibration and 3D Scene ReconstructionAdviser: Prof. Dr. -Ing. Kevin Köser
	Chongqing University, Chongqing, China Sep 2017- Jun 2020 <ul style="list-style-type: none">M.S. in Geoinformatics
	Chongqing University, Chongqing, China Sep 2013- Jun 2017 <ul style="list-style-type: none">B.S. in Surveying and Mapping Engineering (Geoinformatics)
RESEARCH EXPERIENCE	Helmholtz Centre for Ocean Research, Kiel, GEOMAR, Nov 2020- Jun 2024 <ul style="list-style-type: none">Research Assistant<ul style="list-style-type: none">Project: Deep Quanticam - visual mapping and quantitative machine vision in the deep seaFocus: Refractive geometry; Navigation-aided SfM; Refractive SfM; Underwater NeRF.
	Helmholtz Centre for Ocean Research, Kiel, GEOMAR, Jan 2019- Jan 2020 <ul style="list-style-type: none">Research Intern<ul style="list-style-type: none">Project: BubbleBox - High-speed stereo camera system for seafloor bubble flow estimationFocus: Refractive underwater camera calibration; Stereo; Object detection and tracking in video.
INDUSTIRAL EXPERIENCE	Computer Vision Freelancer on Fiverr Mar 2021- Sep 2024 <ul style="list-style-type: none">Freelancer offering various small-to-medium computer vision services and solutions.<ul style="list-style-type: none">Delivered more than 30 orders with a customer rating of 4.8.
	Wuhan Planning and Design Institute, Mar 2017- Sep 2017 <ul style="list-style-type: none">Internship for WebOS Software Development<ul style="list-style-type: none">Project: Web-based office management system for Geo-information purpose.Focus: HTML, CSS, Javascript.
SELECTED PUBLICATIONS	<ul style="list-style-type: none">18 publications listed on Google Scholar, with a total of 192 citations and an H-index of 8. Below are selected publications:<ul style="list-style-type: none">M. She, F. Seegräber, D. Nakath, P. Schöntag, K. Köser. Relative Illumination Fields: Learning Medium and Light Independent Underwater Scenes. (Submitted to <i>CVPR</i>, 2025)M. She, F. Seegräber, D. Nakath, K. Köser. Refractive COLMAP: Refractive Structure-from-Motion Revisited. In <i>IROS</i>, 2024 (Oral)M. She, Y. Song, D. Nakath, K. Köser. Semihierarchical Reconstruction and Weak-area Revisiting for Robotic Visual Seafloor Mapping. In <i>Journal of Field Robotics</i>M. She, T. Weiß, Y. Song, P. Urban, J. Greinert, K. Köser. Marine Bubble Flow Quantification Using Wide-baseline Stereo Photogrammetry. In <i>ISPRS Photogrammetry and Remote Sensing</i>M. She, D. Nakath, Y.Song, K. Köser. Refractive Geometry on Underwater Domes. In <i>ISPRS Photogrammetry and Remote Sensing</i>X. Weng*, M. She*, D. Nakath, K. Köser (<i>*Equal Contribution</i>). Macal - Macro Lens Calibration and the Focus Stack Camera Model. In <i>3DV</i>, 2021 (Oral)M. She, Y. Song, J Mohrmann, K. Köser. Adjustment and Calibration of Dome Port Camera Systems for Underwater Vision. In <i>GCPR</i>, 2019 (Oral)
AWARDS & SCHOLARSHIPS	<ul style="list-style-type: none">Doctoral scholarship granted by China Scholarship Council (CSC) 2020 – 2024Travel grant for young researchers by Deutsche Arbeitsgemeinschaft für Mustererkennung, DAGM 2019
SKILLS	<ul style="list-style-type: none">Computer Vision, Machine Learning, Imaging, Optimization, C++, Python, PyTorch, Ceres-Solver, Linux

REFERENCES

- **Prof. Dr. -Ing. Kevin Köser**
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- **Dr. David Nakath**
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