

## Zimin Xia

Nationality: Chinese

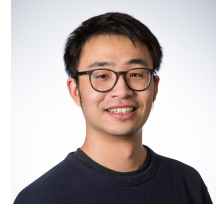
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Google Scholar: <https://scholar.google.com/citations?user=Wl7NqjoAAAAJ&hl=en>



### RESEARCH INTERESTS

**Visual Localization, Ground-to-Aerial Image Matching, 3D Computer Vision, Representation Learning, Self-Supervised Learning, Environment Perception for Autonomous Driving**

### EDUCATION

**Delft University of Technology**, The Netherlands Oct. 2019 - (EXP) Jan. 2024  
**Ph.D. student**, topic: *Efficient Deep Learning for Robot Localization*  
Supervisors: Prof. Julian F. P. Kooij, Prof. Dariu M. Gavrila  
Collaborate with TomTom, Amsterdam, The Netherlands  
Dutch Research Council funded project: Efficient Deep Learning

**University of Stuttgart**, Germany Oct. 2016 - Jul. 2019  
**Master of Science**, Geomatics Engineering  
Master Thesis at Carl Zeiss AG, Germany:  
*Stereo Reconstruction of Human Faces with Deep Learning*

**Wuhan University**, China Sep. 2012 - Jun. 2016  
**Bachelor of Science**, Geodesy and Geomatics Engineering

### SELECTED PUBLICATIONS

#### **Convolutional Cross-View Pose Estimation**

**Zimin Xia**, Olaf Booij, Julian F. P. Kooij  
(Accepted by IEEE Transactions on Pattern Analysis and Machine Intelligence)  
Linked to: Paper, Code

#### **SliceMatch: Geometry-guided Aggregation for Cross-View Pose Estimation**

Ted Lentsch\*, **Zimin Xia**\*, Holger Caesar, Julian F. P. Kooij

\*: Equal contribution

Conference on Computer Vision and Pattern Recognition (CVPR), 2023

Linked to: Paper, Code, Video

#### **Visual Cross-View Metric Localization with Dense Uncertainty Estimates**

**Zimin Xia**, Olaf Booij, Marco Manfredi, Julian F. P. Kooij

European Conference on Computer Vision (ECCV), 2022

Linked to: Paper, Code, Video

#### **Cross-View Matching for Vehicle Localization by Learning Geographically Local Representations**

**Zimin Xia**, Olaf Booij, Marco Manfredi, Julian F. P. Kooij

IEEE Robotics and Automation Letters (IEEE RA-L), 2021

Linked to: Paper, Code, Video

#### **Geographically Local Representation Learning with a Spatial Prior for Visual Localization**

**Zimin Xia**, Olaf Booij, Marco Manfredi, Julian F. P. Kooij

European Conference on Computer Vision (ECCV), 2020, Workshop on Map-based Localization for Autonomous Driving, Oral Presentation

Linked to: Paper, Code, Video

**ACADEMIC  
ACTIVITIES**

**Attended International Computer Vision Summer School (ICVSS) 2022**

**Reviewer for T-PAMI, CVPR, T-RO, RA-L, ICRA, IV**

**TEACHING  
ASSISTANT**

**Machine Learning for Robotics**

2020 - 2023

**3D Robot Vision**

2020 - 2021

**Intelligent Vehicles**

2019 - 2020

**MSC THESIS  
SUPERVISION**

**Cross-View Camera Pose Estimation By Matching Local Features in 3D**

*Sviatoslav Voloshyn*

Oct. 2022 - Aug. 2023

**Improving Cross-View Matching with Self-Supervised Learning**

*Jianfeng Cui*

Jan. 2022 - Jan. 2023

**SliceNet: Street-to-Satellite Image Metric Localization using Local Feature Matching**

*Ted de Vries Lentsch*

Nov. 2021 - Oct. 2022

**LANGUAGE**

**English:** Professional proficiency

**German:** Elementary proficiency

**Chinese:** Native

**HOBBIES**

In my free time, I enjoy reading and doing sports. I am passionate about playing basketball and swimming. During my high school years in China, I was a national second-grade swimmer.