



BACH-THUAN BUI

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[Google Scholar](#)

EDUCATION

DPhil <i>Information Science and Engineering</i> GPA 5.0/5.0 Ritsumeikan University	Oct. 2022 – Now Osaka, Japan
Master of Engineering <i>Information Science and Engineering</i> GPA 4.67/5.0 Ritsumeikan University	Oct. 2020 – Sep 2022 Shiga, Japan
Bachelor of Engineering <i>Telecommunications Engineering</i> Hanoi University of Science and Engineering	Sep. 2015 – Sep 2019 Hanoi, Vietnam

RESEARCH INTERESTS

Computer Vision/Machine Learning/Visual Localization/Visual SLAM/Evolutionary Algorithm. About one year of industry experience developing AI algorithms for face detection and recognition before joining AIS Lab to do research on camera re-localization and mapping using machine learning, which is my recent interest.

SELECTED PUBLICATIONS

- [Bach-Thuan Bui](#), [Huy-Hoang Bui](#), [Dinh-Tuan Tran](#), and [Joo-Ho Lee](#)
Representing 3D sparse map points and lines for camera relocalization. arXiv preprint, 2024.
[Paper | Website | Code | LinkedIn]
- [Bach-Thuan Bui](#), [Dinh-Tuan Tran](#), and [Joo-Ho Lee](#)
D2S: Representing local descriptors and global scene coordinates for camera relocalization. arXiv preprint, 2023. [Paper | Website | Code]
- [Bach-Thuan Bui](#), [Dinh-Tuan Tran](#), and [Joo-Ho Lee](#)
Fast and Lightweight Scene Regressor for Camera Relocalization. 16th IEEE/SICE International Symposium on System Integration (SII), 2023. [Paper | Code]
- [Bach-Thuan Bui](#), [Dinh-Tuan Tran](#), and [Joo-Ho Lee](#)
FeatLoc: Absolute pose regressor for indoor 2D sparse features with simplistic view synthesizing. ISPRS Journal of Photogrammetry and Remote Sensing, 2022. [Paper | Code]
- [Bach-Thuan Bui](#), [Linh Ho Manh](#), [Kiem Nguyen Khac](#), [Michele Beccaria](#), [Andrea Massaccesi](#), and [Riccardo Zich](#)
Evolved design of microstrip patch antenna by genetic programming. International Conference on Electromagnetics in Advanced Applications (ICEAA), 2019. [Paper | Code]

WORK EXPERIENCE

Research Assistant Advanced Intelligent System Laboratory	June 2021 – Now Shiga, Japan
<ul style="list-style-type: none">Developed a back-end API for data collection on carsAnalyzed the collected data and proposed a recommendation system based on driver's behavior	
AI Algorithm Engineer VTI Corporation	November 2019 – April 2020 Hanoi, Vietnam
<ul style="list-style-type: none">Member of AI algorithms team, working on face recognition using deep learning	

Laboratory Assistant

Communications Research and Development Laboratory

Oct. 2017 – Oct. 2019

Hanoi, Vietnam

- Led a group of undergrad. students for doing research on evolutionary algorithms on antenna design

EXTRACURRICULAR ACTIVITIES

Volunteer

October 2022

International Conference on Intelligent Robots and Systems (IROS), Kyoto, Japan

Certificate of Participation

May 2019

The 36th student's research competition, Hanoi University of Science and Technology, Hanoi, Vietnam

Volunteer

July 2018

International Conference on Communications and Electronics (ICCE), Hue, Vietnam

HONORS AND AWARDS

Research Encouragement Award

Feb 2024

Recognition for high-quality research results at Ritsumeikan University in 2023

Research Grant For Doctoral Student

Jan 2024

For a short-term exchange at the Technical University of Munich, Germany (JPY 300,000)

Young Author Award

Jan 2024

SICE International Young Author Award, with prize money of JPY 100,000 in SII2024

Excellent Research Award

March 2023

Recognition for high-quality research results at Ritsumeikan University in 2022

Japanese Government Scholarship (MEXT)

Oct. 2022 – Sep. 2025

Merit-based grant for students pursuing M.E. education in Japan

Candidates to be student representatives at the degree awarding ceremony

Spring 2022

Chosen based on overall academic and research performance during M.E. study

Japanese Government Scholarship (MEXT)

Oct. 2020 – Sep. 2022

Merit-based grant for students pursuing Ph.D. education in Japan

Third Prize of Science Research Competition for Student

May 2019

Prize for research results on evolutionary algorithm in the automation of antenna design

SKILLS

Languages: Strong reading, writing and speaking competencies for English and Vietnamese.**Programming:** Python (Pytorch, NumPy, SciPy, Matplotlib, Pandas), C/C++, MATLAB, ROS.**Document Creation:** Microsoft Office Suite, LaTeX, Markdown.