

# **BACH-THUAN BUI**

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# **EDUCATION**

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

#### RESEARCH INTERESTS

Computer Vision/Machine Learning/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

- 1. 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]
- 2. 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]
- 3. 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]
- 4. 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

VTI Corporation

Research Assistant April 2021 – Now

Advanced Intelligent System Laboratory

Shiga, Japan

- Developed a back-end API for data collection on cars
- · Analyzed the collected data and proposed a recommendation system based on driver's behavior

## AI Algorithm Engineer

**Laboratory Assistant** 

November 2019 – June 2020

Member of AI algorithms team, working on face recognition using deep learning

Communications Research and Development Laboratory

Oct. 2017 - Oct. 2019 Hanoi, Vietnam

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 The 36th student's research competition, Hanoi University of Science and Technology, Hanoi University of Science and Technology of Science and Tech	May 2019 noi, Vietnam
Volunteer International Conference on Communications and Electronics (ICCE), Hue, Vietnam	July 2018
Honors and Awards	
Young Author Award SICE International Young Author Award, with prize money of JPY 100,000 in SII2024	Jan 2024
Excellent Research Award Recognition for high-quality research results at Ritsumeikan University in 2022	March 2023
Japanese Government Scholarship (MEXT)  Merit-based grant for students pursuing M.E. education in Japan	Oct. 2022 – Sep. 2025
Candidates to be student representatives at the degree awarding ceremony Chosen based on overall academic and research performance during M.E. study	Spring 2022
Japanese Government Scholarship (MEXT)  Merit-based grant for students pursuing Ph.D. education in Japan	Oct. 2020 – Sep. 2022
Third Prize of Science Research Competition for Student Prize for research results on evolutionary algorithm in the automation of antenna design	May 2019
Civit i c	

**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.