

Assia Benbihi

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References: Cédric Pradalier, Matthieu Geist, Torsten Sattler

C++, python
github.com/abenbihi

Education

PhD, Computer Vision and Machine Learning *CentraleSupélec, UMI2958 GeorgiaTech-CNRS Metz, France, 05/20*
Master of Electrical and Computer Engineering *Georgia Institute of Technology* Atlanta, Georgia, 12/16
Master of Science in Telecommunication Engineering *Telecom SudParis* Paris, France, 06/15
Bachelor in Maths and Physics ('Classe prepa') *Lycee Hoche* Versailles, France, 06/13

Publications

A complete list is available abenbihi.github.io/#publications.

EdgeGaussians – 3D Edge Mapping via Gaussian Splatting K Chelani, A Benbihi, T Sattler, F Kahl, Preprint 2024
Obfuscation Based Privacy Preserving Representations are Recoverable Using Neighborhood Information K Chelani*, A Benbihi*, F Kahl, T Sattler, Z Kukelova Preprint 2024
Comparative Evaluation of Reconstruction Methods for Object Pose Estimation V Burde*, A Benbihi*, P Burget, T Sattler, Preprint 2024
Differentiable Product Quantization for Memory Efficient Camera Relocalization Z Laskar, I Melekhov, A Benbihi, S Wang, J Kannala ECCV24
Object-Guided Day-Night Visual Localization in Urban Scenes A Benbihi, C Pradalier, O Chum, ICPR 2022
Image-Based Place Recognition on Bucolic Environment Across Seasons From Semantic Edge Description A Benbihi, S Arravechia, M Geist, C Pradalier, ICRA 2020
ELF: Embedded Localisation feature in pre-trained CNN A Benbihi, M Geist, C Pradalier, ICCV 2019
Semantic Nearest Neighbor Fields Monocular Edge Visual-Odometry X Wu, A Benbihi, A Richard, C Pradalier
Semi-Supervised Domain Adaptation with Representation Learning for Semantic Segmentation across Time A Benbihi, M Geist, C Pradalier, ICONIP 2019

Experience

Postdoc Researcher in 3D vision *CIIRC, Prague* 04/23-
Niantic Research Intern 07/22-11/22
Postdoc Researcher in Localization and Mapping *CTU, Prague* 05/20-06/22
Thales Research Software Engineer 05/17-05/20
I develop a software prototype to automate visual inspection on low-contrast images with few features (C++).
Thales Research Software Architect Intern 01-07/16
I designed and developed a prototype of large-scale searchable encryption from a theoretical paper (C++).

Teaching and Supervision

Algorithms class: master level class at CVUT (description [here](#))
Supervision: Bachelor, Master, PhD.

Honours

Outstanding reviewer: ICCV21, ECCV22, Neurips23
Andre Blanc-Lapierre Award; Fondation Mines-Telecom Award *Ranking: 2nd* 2016
For the most innovative contributions of engineering interns across France.

Software

Nonexhaustive list of libraries/tools I am fluent with: COLMAP, OpenCV, Tensorflow, Pytorch, ROS, NerfStudio
Open Source Contribution
Goma (C++) geometry library for vanishing point estimation, plane segmentation and image rectification)
WASABI (Python) Research code for image retrieval from semantic edge geometric features.
ELF (Python) Research code for image feature matching.
Scikit-learn (Python) Functional tests.

Leadership / Community Service

Website Chair 3DV 2022
Program Committee: CVPR, ICCV, ECCV, 3DV, ICRA, IROS, ICLR, NeurIPS