

ANDREA RAMAZZINA

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WORK AND RESEARCH EXPERIENCE

PhD Candidate at Mercedes-Benz AG, Böblingen, Germany Sept 2021 – Present

Research Topic: 3D scene understanding through generative models.

In collaboration with Max Planck Institute of Informatics and Princeton University

Graduate Program at Volvo Group Trucks Technology, Gothenburg, Sweden Sept 2019 – August 2021

Simulation-based validation of perception and path planning modules for autonomous vehicles. As a participant of “Engineering Graduate Program”, had international modules for professional and personal growth.

Intern at Daimler Research institute, Ulm, Germany June 2019- August 2019

Research on generalizability of LIDAR-based perception algorithms in abnormal and adverse conditions.

Master’s thesis student at Volvo Cars, Gothenburg, Sweden Jan 2019- June 2019

Research on unsupervised multimodal domain adaptation using generative models (GANs).

Research internship at National Chiao Tung University, Hsinchu, Taiwan August 2018- Nov 2018

Worked on data augmentation for traffic sign recognition, using Generative Adversarial Networks.

Research internship at Tongji University, Shanghai, China Sept 2016 – Feb 2017

Developed a real-time pedestrian detection and tracking system for a small-sized warehouse robot.

EDUCATION

Chalmers University of Technology, Gothenburg, Sweden August 2017 – June 2019

Master's degree in Complex Adaptive Systems. GPA: 4.8/5

Focus areas: Artificial Intelligence & Robotics

Tongji University, Shanghai, China Sept 2014 – Jul 2015, Sept 2016 –Feb 2017

Sino-Italian Double degree in Automation and Mechanical Design, with the Polytechnic University of Milan (program taught in English)

Polytechnic University of Milan, Milan, Italy Sept 2013 – Sept 2016 Feb 2017- July 2017

- Bachelor’s Degree in Mechanical Engineering, 'Preparatory' (theoretical) track. Final grade: 89
- Spent an additional semester studying in the Department of Mathematics (courses taken: Statistical Inference, Functional Analysis, Probability)

AWARDS AND COMPETITIONS

Taiwan Elite Internship Program Scholarship 2018

Scholarship for short-term research at the National Chiao Tung University.

Adlerbert Hospitality Foundation Scholarship 2018

Scholarship awarding the best foreign students at Chalmers University of Technology.

PoliTong Scholarship 2015
Scholarship awarding the best candidates for the PoliTong double-degree program.

Winner of Spotify devX Stockholm, Stockholm, Sweden 2018
Hackathon at the Spotify HQ. Creation of a customer product using the Web API.

Finalists in the Tongji University at the Volvo Group Business Game, Shanghai, China 2015
Creation of a logistics plan in accordance with specific requirements.

LEADERSHIP AND EXTRACURRICULAR EXPERIENCE

Co-Founder of Ensemble Data 2021- Present
SaaS solution for social media data extraction and analysis at scale.
Leading the machine learning efforts of the team (topic extraction, sentiment analysis).
Initiated and managed a project with University of British Columbia leading to a [paper](#).

Volunteer at Learn and Fun, Shanghai, China 2016 – 2017
Taught English and Math to kids from age 9 to 15

Co-Founder of Alma-PoliTong student association 2015 - Present

- Creating a network among students who participated to some Sino-Italian Degree projects
- Establishing links with companies in Shanghai

TECHNICAL SKILLS

Programming Languages: Python, C++, C, Javascript, Matlab

Machine Learning Frameworks: PyTorch, TensorFlow, Keras

Other: Docker, Flask, Git, Scikit-learn, SciPy, NumPy, OpenCV

Experience Areas: 3D reconstruction, Depth estimation, Object detection, GAN, NeRF, Transformers, End-to-End learning, Generative Models, Deep Learning

PUBLICATIONS

HINT: Learning Complete Human Neural Representations from Limited Viewpoints

A.Sanvito*, A. Ramazzina*, S. Walz*, M. Bijelic, F. Heide, IEEE Intelligent Vehicles Symposium (IV24)

Real-time Environment Condition Classification for Autonomous Vehicles

M.Introvigne*, A. Ramazzina*, S. Walz*, D. Scheuble* M. Bijelic*, IEEE Intelligent Vehicles Symposium (IV24)

Gated Fields: Learning Scene Reconstruction from Gated Videos

A. Ramazzina*, S. Walz*, M. Bijelic, F. Heide, Conference on Computer Vision and Pattern Recognition 2024 (CVPR2024)

ScatterNeRF: Seeing Through Fog with Physically-Based Inverse Neural Rendering

A. Ramazzina, M. Bijelic, S. Walz, A. Sanvito, D. Scheuble, F. Heide, International Conference on Computer Vision 2023 (ICCV2023)

GatedStereo: Joint Depth Estimation from Gated and Wide-Baseline Active Stereo Cues

S. Walz, M. Bijelic, A. Ramazzina, A. Walia, F. Mannan, F. Heide, Conference on Computer Vision and

Pattern Recognition 2023 (*CVPR2023*)

How Does AI-Generated Voice Affect Video Content Creation? Evidence from TikTok

X. Zhang, M. Zhou, G. Moo Lee, A. Ramazzina, F. Cognolato, Workshop on Information Technologies and Systems 2022 (*WITS 2022*)

Single scattering models for radiative transfer of isotropic and cone-shaped light sources in fog

S. Geiger, A. Liemert, D. Reitzle, M. Bijelic, A. Ramazzina, F. Heide, A. Kienle, Optic Express 2023