

# Assem Sadek

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## RESEARCH EXPERIENCE

### NAVER LABS EUROPE

*PhD Resident*

• Working on jointly implementing learning based and geometry based techniques on mobile robots in real world environments.

Grenoble, France

June 2020 - June 2023 (Expected)

### NAVER LABS EUROPE

*Research Engineer*

• Worked on applying domain adaptation techniques in visual localization tasks.

Grenoble, France

Nov 2019 - May 2020

### NAVER LABS EUROPE

*Research Engineer, Intern*

- Award: Certificate of Achievement for research contributions from Naver Labs Europe for 2nd best place on the Intern Day.
- Worked on 3D scene understanding and visual localization for robots.
- Worked on deep learning techniques for monocular depth and ego-motion estimation using self-supervised learning.

Grenoble, France

Feb 2019 - Aug 2019

## PROFESSIONAL EXPERIENCE

### MICROSOFT ADVANCED TECHNOLOGY LAB

*Research Software Development Engineer*

- Used Angular2 to develop on LUIS portal ([www.luis.ai](http://www.luis.ai)) to improve the user experience for configuring the luis app settings.
- Used C# and Microsoft technologies to improve the performance to query information about Luis users and their apps.

Cairo, Egypt

Feb 2018 - Aug 2018

### VALEO

*Software Engineer, Intern*

- Used Java and C to develop a tool that generates standard C file templates for embedded systems' projects to interface with the microcontrollers.

Cairo, Egypt

June 2017 - Aug 2017

### MENTOR GRAPHICS

*Software Engineer, Intern*

- Used python and PyQT to develop a library that automates the testing of Mentor Graphics' Certus Implementor/Analyzer. The library has been used to automate the GUI testing in 100+ test cases.

Cairo, Egypt

July 2016 - Aug 2016

## EDUCATION

### INSTITUT NATIONAL DES SCIENCES APPLIQUÉES DE LYON (INSA LYON)

*PhD in Computer Science*

Research Interests: 3D Vision, Robotics, Reinforcement Learning, Sim2Real Transfer.

Lyon, France

June 2020 - June 2023 (Expected)

### INSTITUT NATIONAL POLYTECHNIQUE DE GRENOBLE (ENSIMAG - INP GRENOBLE)

*M.S. in Data Science & Machine Learning*

Thesis: 3D Scene Understanding: Self-supervised Learning for Monocular Depth Estimation and Ego-motion Estimation.

Relevant Courses: Computer Vision, Advanced Learning Models, Convex optimization, Probabilistic Data Mining.

Grenoble, France

Sep 2018 - Sep 2019

### CAIRO UNIVERSITY

*B.S. in Computer Science* (GPA: 3.7/4)

Awards: Dean's Honour's List, Excellence scholarship (All Semesters).

Cairo, Egypt

Sep 2013 - June 2018

## PUBLICATIONS

- An in-depth experimental study of sensor usage and visual reasoning of robots navigating in real environments (ICRA22)
- Chidlovskii, B. Sadek, A. Wolf C. - Adversarial Transfer of Camera Pose Regression (Arxiv)
- Chidlovskii, B. Sadek, A. - Adversarial Transfer of Camera Pose Regression (ECCV20, TASK-CV Workshop)
- Sadek, A., Chidlovskii, B. - Self-Supervised Attention Learning for Depth and Ego-motion Estimation (IROS20)

## SKILLS

- **Programming:** Python, C++/C, C#, TypeScript, JavaScript, MATLAB, Java
- **Frameworks/Libraries:** PyTorch, Habitat AI Simulator, ROS, LoCoBot, Angular
- **Tools:** Docker, Singularity, SLURM
- **Language:** Arabic (Native), French (Fluent), English (Fluent), Spanish (Advanced)