

# HAKAN GIRGIN

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## PROFILE

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I am currently Ph.D. candidate in robotics at Ecole Polytechnique Fédérale de Lausanne (EPFL) and Idiap Research Institute supervised by Dr. Sylvain Calinon. My research focuses on optimization and active iterative refinement of feedback and feedforward control policies for acquiring robust and anticipatory robot skills from demonstration.

## EDUCATION

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<b>Ph.D.   Robotics</b> Ecole Polytechnique Fédérale de Lausanne (EPFL)	2018 – 2023 Lausanne, Switzerland
<b>Bachelor of Science   Mechanical Engineering</b> <a href="#">Bogazici University</a> , Entrance rank: 0.13%, GPA: 3.90/4.0	2012 – 2017 Istanbul, Turkey
<b>Exchange semester   Mechanical Engineering</b> Ecole Centrale Paris	2014 – 2015 Paris, France
<b>Francophone Highschool</b> Lycée de Galatasaray, Entrance rank: 0.06% GPA: 85.84/100	2007 – 2012 Istanbul, Turkey

## WORK EXPERIENCE

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<b>Ph.D. Research Assistant</b> Idiap Research Institute, Robot Learning and Interaction Group <ul style="list-style-type: none"><li>Ph.D. research supervised by <a href="#">Dr. Sylvain Calinon</a></li><li>Worked on EU-Horizon2020 project <a href="#">CoLLaboratE</a></li></ul>	2018 – 2023 Martigny, Switzerland
<b>Teaching Assistant</b> Robotics Course, AI-Master Programme, Unidistance <ul style="list-style-type: none"><li>Preparation of exercises in Jupyter notebooks with ROS and in <a href="#">html</a> formats</li></ul>	2020-2022 Martigny, Switzerland
<b>Bachelor Research Assistant</b> Bogazici University Cognitive Robotics and Learning Systems Lab ( <a href="#">CoLoRs</a> ) <ul style="list-style-type: none"><li>Assistance to <a href="#">Dr. Emre Ugur</a> in forming CoLoRs lab</li><li>Worked on EU-Horizon 2020 project, <a href="#">IMAGINE</a></li></ul>	2017 – 2018 Istanbul, Turkey
<b>Product Definition Engineering Intern</b> General Electric Aviation	2015 – 2016 Istanbul, Turkey
<b>System Engineering Intern</b> ALTINAY Aerospace & Advanced Technologies	2016 Istanbul, Turkey

## SKILLS

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**Languages:** Turkish (Native), English (Proficient), French (Proficient), Japanese (B1), Italian (A1), German (A1)

**Programming:** Python, Jupyter, MATLAB, Tensorflow, PyTorch, Pyscript

**Software:** ROS, PyBullet, KDL

## PUBLICATIONS

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### **Reactive Anticipatory Robot Skills with Memory**

H. Girgin, J. Jankowski, S. Calinon, International Symposium on Robotics Research ISRR 2022

### **Optimization of robot configurations for motion planning in industrial riveting**

H. Girgin, T. Lembono, R. Cirligeanu, S. Calinon, In Proc. IEEE Intl Conf. on Advanced Robotics ICAR 2021

### **Active Learning of Bayesian Probabilistic Movement Primitives**

T. Kulak, H. Girgin, J.-M. Odobez, S. Calinon, IEEE Robotics and Automation Letters RAL 2021

### **Probabilistic Adaptive Control for Robust Behavior Imitation**

J. Jankowski, H. Girgin, S. Calinon, IEEE Robotics and Automation Letters RAL 2021

### **Active Improvement of Control Policies with Bayesian Gaussian Mixture Model**

H. Girgin, E. Pignat, N. Jaquier, S. Calinon, IEEE Intl. Conf. on Intelligent Robots and Systems IROS 2020

### **Generative Adversarial Training of Product of Policies for Robust and Adaptive Movement Primitives**

E. Pignat, H. Girgin, S. Calinon, In Proc. Conference on Robot Learning CoRL 2020

### **Compliant Parametric Dynamic Movement Primitives**

E. Ugur, H. Girgin, Robotica, 38(3), pp. 457-474 Robotica 2020

### **Associative Skill Memory Models**

H. Girgin, E. Ugur, IEEE Intl. Conf. on Intelligent Robots and Systems IROS 2018