

# Juri Fedjaev

*M.Sc. Student - Electrical & Computer Engineering*

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## Education

2015–to date **M.Sc. Electrical & Computer Engineering**, *Technical University of Munich*, Germany, Current GPA: 3.7.

Master's studies in Electrical and Computer Engineering. Main interests are Machine Learning, Computer Vision, Robotics and Neuroscience. Relevant projects:

- Programming of a Turtlebot 2 robot to autonomously play a field hockey game. The work involved SLAM, path planning and computer vision algorithms in C++ within the ROS environment [Link to Github-repository](#).
- Work on a miniature electric car to make it capable of autonomously navigating within a previously mapped environment using a LIDAR, RGB-D (Kinect) camera, IMU and odometry information. Programming was conducted in Python and C++ in the ROS framework. [Link to Github-repository](#)

2013–2015 **Diplôme d'Ingénieur**, *Ecole Centrale de Lille*, France.

One of top 15 best Grandes Ecoles of engineering (out of 200).

- Electives: Automation Systems, Ambient Intelligence, Bioengineering
- Research project: *Linear programming for the energy management of a lithium-ion battery*, published in Power Electronics and Motion Control Conference (PEMC), 2016 IEEE International.
- 2-year student project: Developing a smart bracelet with innovative tactile feedback actuators in collaboration with a local micro- and nanoelectronics institute (IEMN). My work included programming of microcontrollers and signal processing. The project was awarded as one of the best smart devices during a regional student science competition MOC2014

2013–to date **T.I.M.E. Double Degree Program**, *TU Munich and EC Lille*.

T.I.M.E. is a network of 53 leading Technical Institutions with the goal of creating Top Industrial Managers and Engineers for the future. T.I.M.E. awards its students with two Masters-level Degrees from two different countries (Diplôme d'Ingénieur Centralien and M. Sc. TUM)

2011–2013 **B.Sc. Electrical & Computer Engineering**, *Technical University of Munich*, Germany.

Bachelor's studies in Electrical Engineering and Information Technology

- Mandatory courses: Mathematics, Physics, Electromagnetism, Circuit Theory, Digital Design, Measurement Systems and Sensor Technology, Algorithms and Data Structures, Signal Processing, Telecommunications and Control Systems, Computer Technics, Electronics and Electrical Power Devices

2004–2011 **German Abitur**, *Ulrichsgymnasium Norden*, Germany, Grade: 1.2 (German).

German highschool: scientific profile with physics and biology as majors.

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## Practical Experience

08/16–to date **Innovation Analyst Working Student**, *Siemens Technology-to-Business - next47*, Munich, Germany.

Siemens Technology-to-Business (TTB) practices "outside-in" innovation for Siemens, seeking out the latest technology innovations from startup companies, individual inventors, universities and research labs. My work included the following activities within the innovation field of autonomous machines:

- Scouting of start-ups and transferring innovation to Siemens' business units
- Technical due diligence
- Technology landscaping

06/15–09/15 **Research Intern**, *Bioacoustics Research Laboratory, University of Illinois at Urbana-Champaign*, Urbana, USA.

Studies:

- Ultrasound-activated drug delivery using nanoparticles on ultrasound contrast agents
- Fabrication and characterization of ultrasound contrast agents
- Calibration of ultrasound transducers

01/14–02/14 **IT Intern**, *ERDF*, Lille, France.

ERDF (Electricité Réseaux Distribution France), provider of the national power supply system:

- Training in document management systems (DMS)
- Debugging of a newly adapted DMS at ERDF

02/13–04/13 **Engineering Intern**, *EHZ Ingenieurbüro*, Norden, Germany.

- Implementing web visualisations for automation systems
- Programming of a Simatic-S7-1200 PLC

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## Extracurricular Activities

02/16–07/16 **SpaceX Hyperloop Competition**, *WARR Hyperloop Team*, Munich.

WARR Hyperloop is a student team participating in the SpaceX Competition to build the Hyperloop, a high-speed transportation system. Responsibilities:

- Hardware development for the computer & navigation subsystem: PCB-design and system architecture
- Software development for microcontrollers
- Hardware testing under extreme conditions (vacuum chamber)

2014–2015 **Treasurer**, *Club TIME*.

Responsible for accounting and budget (> 10,000 EUR) for the organisation of events for international first-year students at ECL.

2013–2015 **Active Member**, *Plug In*.

Association at EC Lille which is responsible for the organisation of musical events performed by student bands.

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## Other

Languages: German (native speaker), Russian (bilingual), English (fluent, TOEIC: 960/990), French (fluent)

IT skills: Advanced: MS Powerpoint, Word, Excel, L<sup>A</sup>T<sub>E</sub>X, Matlab, C, C++, ROS, Linux Bash, git  
Basic: JavaScript, Python, HTML/CSS and CATIA v5.

Munich, February 4, 2017

