Luca Brusatin

✉ mail@lucabrusatin.com • 🏠 lucabrusatin.com

Experience

Senior System Software Engineer
07/2017–present

NVIDIA Corporation
Zurich, ZH (CH)

- Developing software and algorithms for NVIDIA's DriveWorks SDK
  - Bayesian filtering for vehicle state and trajectory estimation
  - Software development for autonomous vehicles on Linux and QNX

Research associate
12/2015–02/2017

Tufts University, Human-Robot Interaction Laboratory
Medford, MA (US)

- Developed and maintained components for the laboratory's software architecture
- Implemented a norm-aware task manager for robots supporting the execution of concurrent actions in a multi-agent setting, a core component in the architecture
- Developed computer vision software for robotic supervision of humans

Embedded Software Engineer (Intern)
08/2014–01/2015

senseFly Ltd.
Cheseaux-sur-Lausanne, VD (CH)

- Designed and implemented real-time software for critical features of senseFly's *albris* quadcopter in time for technology tradeshows (*Intergeo* 2014, *CES* 2015):
  - State estimation
  - Stabilization algorithm for the camera gimbal
  - Fallback autopilot
- Wrote drivers for various onboard sensors
- Helped the software and QA teams interface with the low-level control and communication system

Education

M.Sc. Microtechnique, GPA: 5.68/6.0
09/2013–09/2015

Ecole Polytechnique Federale de Lausanne (EPFL)
Lausanne, VD (CH)

Robotics and Autonomous Systems

Relevant coursework: applied machine learning, bio-inspired artificial intelligence, image processing, distributed intelligent systems, robotics, system identification, space mission design and operations.

Visiting Graduate Student
02/2015–08/2015

Harvard University
Cambridge, MA (US)

Self-Organizing Systems Research Group, School of Engineering and Applied Sciences

Master's Thesis: *Dispersion Algorithms on the Kilobot Robot Swarm*

B.Sc. Microtechnique
09/2010–07/2013

Ecole Polytechnique Federale de Lausanne (EPFL)
Lausanne, VD (CH)

Mechatronics, Robotics and Automation Engineering

Relevant coursework: analysis, linear algebra, numerical analysis, probability and statistics, physics, programming, control systems, signal processing, optical engineering, electronic circuits and systems, semiconductor devices.

Programming languages

C, C++ (11,14,17): Proficient   **Python, Java**: Fluent

Languages

French: Native   **English**: Fluent   **Swiss-German**: Native   **German**: Fluent