Arthur Bricq - Software Engineer

arthur.bricq@protonmail.com \cdot +41 78 681 11 20 \cdot arthurbricq.com Lausanne, Switzerland



I am a software engineer working in robotics, more specifically in autonomous robot operating in unknown environment. My set of skill covers low-level programming (C++, Rust, Oberon) to high level software design (Java, Python, Javascript) and backend-programming (Java, Python). I am truly passionate about computer science: from building large software in a team to spending some of my personal time programming personal projects. I am a team player who really enjoys learning from his colleagues and sharing with them what I know.

I have just finished a 3-months long:distance hike with my partner who just finished her studies, from Italy to Albania, which is why I am currently looking for a job.

EXPERIENCES

Software Engineer

[2022-2024] BlueBotics, Lausanne

I was part of an agile team where I worked on many different products: embedded programming for the robots, a high-level Java fleet manager, a Qt user-interface configuration software and on a JS web-app. In this company, I also work on research projects to improve the localization stack of our robots.

• Software Intern and Master Thesis

[2021-2022] Flybotix, Lausanne

I worked as a research intern in a drone company, where I designed a localization software which drasticilly improved accuracy and robustness over their previous solution, using visual-SLAM algorithm.

• Year Abroad in Vancouver, Canada

[2018-2019] University of British Columbia

A year in Vancouver to finish my bachelor, during which I followed **computer-science** classes.

• Mobile App Developer

[2017 to 2020] EPFL, Lausanne

I worked for the EPFL's Junior Entreprise to develop a complex mobile app for a shop company in Switzerland, and to advise the association on several other mobile projects.

• Teaching Assistant at EPFL

Physics, Computer Science, Numerical Analysis & Legged Robotics.

• Year Abroad in Brasil

[2014-2015] Sao-Paulo State Year abroad during high-school

HOBBIES & INTERESTS

All kinds of outdoor sports, running & trail-running, long-distance hiking, yoga, biking.

Programming, computer-science, competitive programming, AOCs

SKILLS

Programming

- Java: Worked for a backend and for an UI application
- Rust: My favourite language to work with
- C++: High-performance programming (eg Eigen), 3D programming (OpenGL), Robotics-specific programming
- Python: Development of general purpose softwares, UIs, data-science, machine learning, deep learning and general prototyping
- Swift: iOS development
- Javascript (React, React-Native, Vue.JS and barebones)
- Matlab

Electronics

PCB Design & Manufacturing with Kicad, Microcontroller programming, Motor Control.

Software Design

Design of complex softwares, knowledge of design patterns, knowledge of working in an agile team.

• Linux

Linux Proficiency (used at home), ROS2. I also worked a lot with Jetson Nano and with the Raspberry Pi Ecosystems.

• Mechanical Engineering

Catia, SolidWorks

Languages

Fluent: French, English; Conversation level: Italian, Portugues.

PORTFOLIO

Find my portfolio on my personal website.

It contains presentations of some personal projects, realized alone or with friends. Programming being a passion, I always work on these fun side-projects.

EDUCATION

• M.S. Robotics, GPA: 5.54/6 (currently) [2021] Ecole Polytechnique Federale de Lausanne (EPFL) Received the Excellency Scholarship

• **B.S. Mechanical Engineering, GPA: 5.58/6** [2018] Ecole Polytechnique Federale de Lausanne (EPFL)