Arthur Bricq - Software Engineer

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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 of 1500km with my partner through the Dinaric Alps, 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)*