

Théo Lemaire

Bioengineer & Versatile Programmer

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📁 EXPERIENCE

Ph.D. in Neuroengineering | TNE Lab, EPFL

📅 Apr 2016 - Mar 2020 📍 Campus Biotech, Geneva, CH
Development of a multiscale modeling framework to understand and optimize Ultrasound Neuromodulation.

Ski & Snowboard Instructor | Ecole du Ski Français

📅 Jan 2013 - Present 📍 Monts Jura, FR
5-years experience with private and collective lessons to both adults and kids, from beginners to competitors. State diploma training currently underway.

Mathematics Teacher | Institution Jeanne d'Arc

📅 Nov 2015 - Dec 2015 📍 Gex, FR
1-month experience as a middle school mathematics teacher (3 classes). Learned to build up my authority and to create a learning dynamics inside a class.

Software Engineering Intern | Zenith Technologies

📅 Apr 2013 - Aug 2013 📍 Cork, IRL
Designed a C++ application to extract relevant data from a *DeltaV* database and provide team leaders with a comprehensive overview of their project's evolution. Created VBA scripts used by collaborators to generate documentation.

Kinesiology Lab Intern | Geneva University Hospitals

📅 Aug 2012 - Jan 2013 📍 Geneva, CH
Developed a MATLAB framework (GUI, processing & graphing tools, interaction with database, PDF generation) to analyse biomechanical data from clinical examinations. Used by lab members for daily reporting and scientific publications.

📄 ACADEMIC PROJECTS

Master's thesis in Neuroprosthetics | TNE Lab, EPFL

Computer modeling of nerve-electrode interfaces with the *Sim4Life* simulation platform to improve the development of upper-limb neuroprostheses.

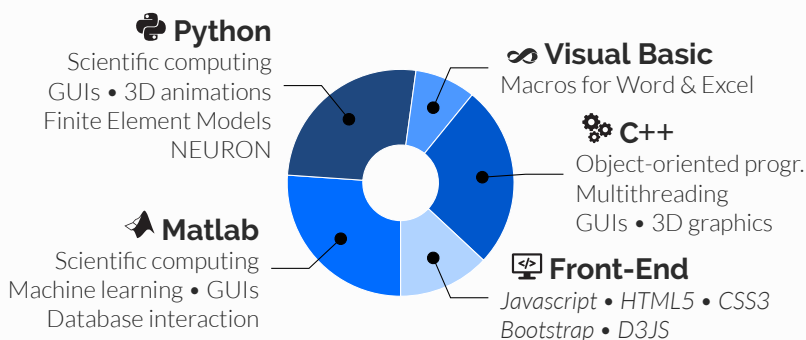
Project in Biorobotics | BIOROB Lab, EPFL

Developed a computer-vision tool on the *Webots* simulator allowing a differential wheeled robot to detect and navigate through colored rectangular frames.

Project in Digital Humanities | DH Lab, EPFL

Numerical simulations of a novel spatio-temporal epidemics model to study the propagation of the Plague in the city of Venice during Middle-Age. 🌐 [Venice Atlas](#)

🔧 TECHNICAL SKILLS



📄 MS Office • 📄 L^AT_EX • 🎨 Illustrator • 🖥 LabVIEW • 📦 Git

🎓 EDUCATION

MSc in Bioengineering Minor in Neuroprosthetics EPF Lausanne

📅 Sept 2013 - Sept 2015 📍 Lausanne, CH
GPA: 5.34 / 6.0

BSc in Life Sciences & Technologies EPF Lausanne

📅 Sept 2009 - July 2012 📍 Lausanne, CH
GPA: 4.92 / 6.0

Scientific baccalaureate Lycée Int. Ferney Voltaire

📅 Sept 2006 - July 2009 📍 Ferney, FR
GPA: 18.71 / 20.0

📖 COURSEWORK

Graduate

Sensorimotor neuroprosthetics
Flexible bioelectronics
Image processing • Machine learning
Dynamical systems • Biomechanics
Gait analysis & modeling
Computational motor control
Bioinformatics • Systems biology
Digital humanities

Undergraduate

Analysis • Algebra • Physics
Chemistry • Organic chemistry
Cellular biology • Molecular biology
Numerical analysis • Statistics
Electronics • Signal processing
Programming (C | C++ | Matlab)
Development biology • Microbiology
Physiology • Genetics • Genomics
Fluid dynamics • Transport phenomena
Biothermodynamics • Neuroscience

🗨 LANGUAGES

Language	Proficiency
French	★★★★★
English	★★★★☆
German	★★★★☆
Russian	★☆☆☆☆

❤ HOBBIES

Hobby	Icon
Science	🔬
Taekwondo	🥋
Football	⚽
TV Shows	📺
Skiing	🎿
Hiking	🏔
Cycling	🚴
Travels	🌍