



Internship (6 months) @TheLab – driven by swissbiomechanics

Focus: FDM 3D Printing & Computational Footwear Design

LOCATION

Einsiedeln, Switzerland

WORKLOAD

80–100%

DURATION

at least 6 months

START DATE

by arrangement

Are you passionate about 3D printing and the future of footwear? Join our innovation lab – **TheLab** – and dive deep into the world of **Fused Deposition Modeling (FDM)** and **computational design** for next-generation footwear solutions.

At **TheLab**, we develop digital workflows that translate biomechanical data into functional and innovative shoe concepts – from sole structures to upper designs. Our work is rooted in **science and motion analysis**, aiming to create highly customized footwear for both elite athletes and everyday users.

What you'll do:

- + Explore and experiment with FDM printing for advanced footwear applications
- + Systematically validate diverse printing parameters for performance and quality
- + Design and test metamaterials for functional footwear components
- + Build digital workflows that integrate biomechanical data into the design and prototyping process

READY TO SHAPE THE FUTURE OF FOOTWEAR WITH US?

Apply now and become part of a team pushing the boundaries at the intersection of **biomechanics, design, and advanced manufacturing**.

Matthias Zäh

Head of TheLab

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What you bring:

- + Strong experience with slicing software for FDM 3D printing
- + Proficiency in computational design tools: Rhino/Grasshopper (Python and/or C# are a plus) and Blender
- + Passion for 3D printing, digital fabrication, and footwear innovation
- + A hands-on mindset and problem-solving attitude
- + Independent, structured, and solution-oriented working style

What we offer:

- + Access to a **state-of-the-art lab** with FDM printers, biomechanical equipment, and motion capture systems
- + Deep integration in real-life **R&D projects** in collaboration with universities, sports professionals, and material developers
- + The opportunity to shape **individualized footwear solutions** – from data to design to physical product
- + A multidisciplinary team combining **biomechanics, industrial design, material science and software engineering**
- + Workspace in a scenic environment in **Einsiedeln, Switzerland**, just an hour from Zurich

swissbiomechanics ag

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