

## Aperçu

Adeptly navigating the intersection of medical software development and regulatory compliance ♦ Dedicated to harmonizing technical innovation with stringent quality standards ♦ Skilled in communicating complex data and concepts to diverse stakeholders ♦ Demonstrating empathy and effective engagement with a wide range of audiences

## Professional Experience

### Comerge AG, Switzerland

*Project Lead & Regulatory Specialist, Medical Software --- 2021 - present*  
*Visualization Engineer ----- 9/2018 - 12/2020*

- Project lead overseeing the development and regulatory compliance of medical software from idea to market ([www.comerge.net](http://www.comerge.net) and [www.incremed.com](http://www.incremed.com))
- Management of a small team of software developers
- Interacting with different stakeholders including clients, investors, clinicians, consultants, a Notified Body, the FDA, and external suppliers
- Aligning software development efforts with quality and regulatory affairs:
  - Requirements engineering
  - Documentation of software architecture and design
  - Risk management and cybersecurity analysis
  - Planning and execution of software verification and validation
  - Updates and improvements to internal SOPs and templates
  - Participating in audits by the Notified Body

*Junior Software Engineer ----- 9/2017 - 8/2018*

- Development of a web-based business communication software in a cross-cultural team using agile methodologies

### Hertig Visualizations, Switzerland

*Scientific Visualization Specialist ----- 2016 - present*

- Freelance work in scientific visualization, data visualization, infographics, and web programming ([www.samhertig.com](http://www.samhertig.com))
- Holding workshops on scientific visualization for universities
- Selected clients: ETH Zürich, EPF Lausanne, University of Basel, Stanford University, UC San Francisco, University of Lisbon

*Stanford University, USA ----- 4/2015 - 12/2015*

*University of California, San Francisco, USA ----- 5/2013 - 3/2015*

*Postdoctoral Researcher*

- Developed software for analysis and visualization of biomedical data ([www.cgl.ucsf.edu/chimera](http://www.cgl.ucsf.edu/chimera))
- Teaching assistant for object-oriented programming in Python
- Awardee of a postdoctoral fellowship by the Swiss National Science Foundation

## Education

*PhD in Science, ETH Zürich, Switzerland ----- 3/2012*

- Discovered a mechanism by which pathogenic bacteria can sense mechanical force using computer simulations of proteins
- Presented research at international conferences, secured grants for supercomputing resources, published research in high-impact, peer-reviewed publications, and granted one US patent

*MSc in Physics, University of Bern, Switzerland ----- 5/2007*

- Minor subjects: mathematics and astronomy

## Sam Hertig, PhD

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## Areas of Expertise

- **Medical Devices & Regulatory:** IEC 62304, IEC 62366, ISO 14971, ISO 13485, various software-related guidance documents (EU, MDR, FDA)
- **Software:** C#, JavaScript, AngularJS, Python, Git, basics of Java and SQL
- **3D & Data Visualization:** Mixed Reality, Microsoft HoloLens 2, Unity3D, Three.js, D3.js
- **Visual Communication & Graphic Design:** Adobe Illustrator, Photoshop, basics of AfterEffects and Autodesk Maya
- **Broad Knowledge of Science:** physics, math, astronomy, biology
- **Languages:**
  - English (fluent)
  - German (fluent)
  - French (conversational)
  - Swiss-German (native)
- **Teaching & Mentoring:**
  - Industry: interns, apprentices, junior software developers
  - Academics : high school, undergraduate and graduate students

## Scientific Publications

- Full list: [www.bit.ly/2IGz5hp](http://www.bit.ly/2IGz5hp)

## Interests

- Electric Bass: [www.tontopf.be](http://www.tontopf.be)
- Photography: [www.bit.ly/3yys87V](http://www.bit.ly/3yys87V)