TYLER BURNS, PHD
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A life sciences entrepreneur leveraging deep wet-lab experience on top of a dry-lab skill set to frame and solve complex problems. I specialize in unsupervised learning, knowledge graphs, single-cell analysis, and AI language models.

Education

- **PhD in Cancer Biology, Stanford University School of Medicine, August 2017**
  - GPA: 3.89.
  - PhD Thesis: Expanding the capabilities of mass cytometry data acquisition and analysis.

- **BA with Honors in Human Biology, Stanford University, December 2008**
  - GPA: 3.45.
  - Honors thesis: Behavioral and hormonal associations with hippocampal volume variation.

Relevant Experience

- **Presidio Labs LLC: Berlin, Germany**
  - Chief Technology Officer, January 2023 to Present
  - Tasks: Bioinformatics product development, team recruitment and management, strategic leadership, innovation and research, collaboration and partnerships.

- **Burns Life Sciences Consulting, GmbH: Berlin, Germany**
  - Founder and managing director, May 2020 to Present
  - Tasks: Custom data analysis pipeline development, drug target identification, business and marketing strategy, content marketing and thought leadership, product management, business development.

- **Independent consulting: Berlin, Germany**
  - Bioinformatics consultant, July 2017 to May 2020
  - Tasks: Developing single-cell data analysis pipelines focusing on domain expertise, innovation, and intuition. Bridging the gap between biology and AI. Integrating computational and experimental best practices between cytometry, single-cell sequencing, and imaging modalities.

- **German Rheumatism Research Centre: Berlin, Germany**
  - CyTOF computational biologist, August 2017 to September 2018 (with continued collaboration to Present)
  - Tasks: Developed and utilized an end-to-end pipeline for CyTOF data analysis, worked on various research projects.

- **Cytobank, Inc: Mountain View, CA**
  - Consultant, September 2016 to February 2018
  - Tasks: Developing solutions to biological problems in high-dimensional single cell analysis, researching machine learning algorithm performance and run-time.

First Author Publications

- **Burns, T. J.**, Frei, A. P., Gherardini, P. F., Bava, F. A., Batchelder, J. E., Yoshiyasu, Y., et al. (2017). High-throughput precision measurement of subcellular localization in single cells. *Cytometry Part A*, 1–9. http://doi.org/10.1002/cyto.a.23054
- **Burns, T. J.**, Nolan G. P., Samusik N. (2018) Continuous visualization of multiple biological conditions within single cell data. *BioRxiv*.

Software

- **Burns, T. J.** (2018) Bioconductor Package “Sconify.” A toolkit for performing KNN-based statistics in flow and mass cytometry data.