### The Curriculum Vita of D. V. Klopfenstein

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#### PROFESSIONAL PREPARATION

- Drexel University, Philadelphia, PA: PhD Biomedical Engineering
- Drexel University, Philadelphia, PA: MS Biomedical Engineering
- Rensselaer Polytechnic Institute, Troy, NY: BS Electrical Engineering

### PEER-REVIEWED PUBLICATIONS

# 1. Commentary to Gusenbauer and Haddaway 2020: Evaluating retrieval qualities of Google Scholar and PubMed

2020, (First author)

- Wrote a commentary about another paper, a format that is by invitation-only of the editors.
- The authors from the original paper were invited to and did respond.
- Created a new method for managing a PubMed literature search.

# 2. GOATOOLS: A Python library for Gene Ontology (GO) analyses

2018, (First author)

- Defined and answered open questions by creating 100,000 stochastic simulations and then examining and interpreting the data.
- Dramatically expanded functionality in the open-source project:
  - Created a new method for grouping GO terms.
  - Since publishing, the GOA TOOLS open-source project is now trusted to be a prerequisite by ~90 other open-source projects.
  - Expanded research interest in GOATOOLS: GitHub stars rose from ~40 to over 430.
- Found a "showstopper" bug for the Gene Ontology Consortium's (GOC) annotation software, which they fixed.
- Found and reported numerous bugs in GO annotation to the GOC.

## 3. Cyclin D1 integrates G9a-mediated histone methylation

2019, Oncogene (Middle author)

Modified Jefferson's hypothesis:

- Created novel visualizations to examine data related to Jefferson's hypothesis.
- Modified Jefferson's hypothesis from "G9a/cyclin-D1 molecules bind to LAD regions" to "G9a/cyclin-D1 molecules bind to the edges of LAD regions."
- Performed two statistical analyses to test the modified hypothesis.