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TYLER HEIST, PH.D.

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I'm Tyler, a data scientist and computational biologist. My background is in healthcare and microscopy data, but I am always interested in gaining expertise in new domains. I have a passion for reproducible research, scientific communication, and novelly applying machine learning tools to real-world problems.

EXPERIENCE

SEPTEMBER 2019 – PRESENT

DATA SCIENTIST/SOFTWARE DEVELOPER, EPIC SYSTEMS, MADISON WI

- Designed, led, and executed research using Electronic Health Record (EHR) data to provide insights into the COVID-19 patient population, with a focus on comorbidities and clinical outcomes.
- Collaborated with several external groups (e.g., FDA COVID-19 evidence accelerator, Kaiser Family Foundation) in addition to researchers at academic institutions (e.g., University of Chicago).
- Designed, trained, and validated predictive models (e.g., for clinical and operational use in Epic's EHR system.

MAY 2016 – SEPTEMBER 2019

GRADUATE STUDENT, LEVINE LAB, PRINCETON NJ

- Investigated how transcription occurs across large genomic distances during early development in Drosophila embryos.
- Developed an image processing pipeline to segment nuclei and identify transcriptional foci from traditional confocal and super-resolution microscopy.

EDUCATION

SEPTEMBER 2015 – SEPTEMBER 2019

PH.D. QUANTITATIVE AND COMPUTATIONAL BIOLOGY, PRINCETON UNIVERSITY

GPA: 3.94, NSF GRFP – Honorable Mention

AUGUST 2011 – SEPTEMBER 2015

B.S. BIOLOGY (HONORS) AND COMPUTER SCIENCE, UNIVERSITY OF RICHMOND

GPA: 3.92, Phi Beta Kappa, Barry M Goldwater Scholarship, Arnold and Mabel Beckman Fellowship

SKILLS

- Python (*pandas*, *numpy, scikit-learn*, etc.)
- R (*tidyverse*, *tidymodels*, etc.)
- SQL
- Docker/Kubernetes
- Web (HTML, CSS/Sass, Typescript, C#)
- Git
- Bash
- Frequentist statistics
- Molecular laboratory techniques (e.g., CRISPR/Cas9, PCR, RNAseq)