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TYLER HEIST, PH.D.

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

EXPERIENCE

OCTOBER 2021 – FEBRUARY 2023
CEREBRAL, SAN FRANCISCO CA (REMOTE)
DATA ENGINEER (10/22 – 2/23), DATA PRODUCT MANAGER (3/22 – 12/22), DATA SCIENTIST (10/21 – 9/22)

- Managed and implemented for Cerebral's data products area, which included real-time and embedded data solutions in Cerebral's Electronic Medical Record, such as Clinical Decision Support (assisting >500 clinicians in providing optimal treatments to >10k patients) and Crisis Message Detection (helping >4000 patients get aid from crisis specialists in <10 minutes rather than the baseline support time of >12 hours).
- Designed and implemented robust ELT processes ingesting data from multiple, disparate sources (e.g., Electronic Health Record (EHR), marketing, user behavior data, messaging) using a variety of processes (e.g., custom, Fivetran, Stitch, Apache Kafka, DBT) orchestrated in Apache Airflow.
- Led data quality efforts for the data team, which included implementing various tools like DBT (data transformations), Monte Carlo (data observability), and Atlan (data catalog) as well as creating and organizing twice-quarterly one-day hackathons to address data quality and infrastructure gaps, resulting in a reduction in up to 75% of tech debt tickets per quarter.
- Mentored data analysts and data scientists in software development best practices, such as git/version control, documentation, and testing.

SEPTEMBER 2019 – SEPTEMBER 2021
DATA SCIENTIST, 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, collaborating 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., Inpatient Deterioration Index) 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 – MAY 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, scikit-learn,* etc.); R (*tidyverse, tidymodels,* etc.); **SQL** (*Postgres, Snowflake*); **Statistics**; **Machine Learning**; **Containerization** (*Docker*); **Version control (***git, subversion*); **Workflow orchestration** (*Apache Airflow*); **Amazon Web Services** (*Lambda, S3, MSK,* etc.); **Data transformations** (*DBT*); **Data Observability** (*Monte Carlo*); **Shell scripting** (*Bash, Zsh)*; **BI Tools** (*Looker*); **Mentorship**