JUSTIN WATERFIELD

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PROFILE

Experienced data manager with a background in both data science and healthcare. Trained as an electron microscopist, flexible and able to perform many roles, including data analyst, data scientist, data operations and logistics, microscopy and microtomy techniques, and digital pathology. Demonstrated leadership as data operations manager, safety officer, EHR subject matter expert, and chair of recruitment and retention committee for DUHS clinical laboratories. A strong team player with excellent communication skills, and a desire to grow in both understanding and leadership.

DATA SKILLS

Data Operations: Atlassian/Jira/Confluence, Agile Development, Databricks, AWS S3

Data Science: GitHub, PowerBI Tools/Tableau, AI/ML, Apache Airflow GitHub Portfolio

Programming: SQL, Python, Shell

EDUCATION

DUKE UNIVERSITY, School of Medicine, Durham, NC

Master of Management in Clinical Informatics, August 2020, 3.7 GPA

Practicum: Evaluate a Duke Health Technology Services Transition to a Revenue Generating Business Model

After interviewing service owners, working closely with DHTS finance, and conducting research on Information Technology Infrastructure
Library (ITIL), a potential financial model was presented to senior leadership underlining the challenges and benefits of a proposed
model change.

WINTHROP UNIVERSITY, Rock Hill, SC

Bachelor of Science, Biology, 2009

PROFESSIONAL EXPERIENCE

healthverity, Philadelphia, PA (Remote)

Founded in 2014, Innovative Healthcare Technology Startup

Data Operations

Data Operations Support, Manager (2022-Present)

- Manage 5 data support engineers
- Lead daily stand-up and manage agile work development for team through use of Kanban board
- Monitor over 80+ ingestion pipelines daily for issues and resolve them within 24-48 hours
- Caretaker of the data warehouse, which contains hundreds of high priority data feeds
- Create and maintain data feeds and tiles, for use in the company marketplace
- The support team for the company data related issues, monitoring of portal requests and data warehouse related issues
- Maintain and create GxP, SOP, and CAPA documentation for Data Operations related work

RTI International, RTP, NC

2020-2022

2022-Present

World Renowned Non-profit Research Institute

GenOmics, Bioinformatics, and Translational Research Center Biostatistics and Epidemiology Division

Bioinformaticist, Systems Analyst 3 (2020-Present)

- Working group manager for the PhenX Psychosocial & Social Determinants of Health Working Group
- Project Member of the <u>BRAIN</u> Initiative
- · Prepare, analyze, and visualize data across various science and research domains for reports, projects, and proposals
- Ensure datasheet quality, development, and deployment for the PhenX Toolkit
- HL7 and healthcare/EHR data subject matter expert

DUKE UNIVERSITY HEALTH SYSTEM, Durham, NC

World Class Academic Medicine Center Health System Molecular

Pathology

Medical Laboratory Scientist, Advanced (2009-2020)

- Analyze and assess 600+ clinical patient samples a year to assist pathologists in diagnosing infectious diseases, using Surgical Pathology Electron Microscopy (SPEM)
- Prepare and verify EM diagnostic virology samples to assist clinicians with patient diagnosis
- Accountable for efficient supply chain management and logistical operations of laboratory

Beaker Super User (2018-2020)

- Perform all Beaker accessioning and troubleshooting. often called to solve Beaker problems and work within Electronic Health Record (EHR) to perform tasks related to patient care
- Work in test environment to prepare for upcoming production releases

Recruitment & Retention Committee Chair (2020)

- Lead, coordinate, and set agenda for committee
- · Communicate and organize outreach with local schools and organizations for outreach opportunities
- Work alongside other work culture committee chairs, as well as HR staff to create a positive and thriving environment for DUHS
 employees

ACADEMIA

Duke University, Durham, NC

2022

Top Private Research University

Master of Management and Clinical Informatics College of

Medicine

Co-Mentor Student Practicum: Develop a model to unify the data elements in FHIR & OMOP (2022-Present)

- Collaborate with Dr. Ed Hammond to guide a group of graduate students in completion of their master's practicum (thesis) project:
 - Mapping variables and data models is a costly and time-intesnive endeavor, a shared data model was proposed. Aligning the data elements in FHIR + OMOP will require changes in both data models. The goal was to produce documentation on how this objective will be accomplished, so that other stakeholders can build upon this work.

Duke University, Durham, NC

2020-2021

Master of Management and Clinical Informatics College of Medicine

Data Science Teaching Assistant (2020-2021)

- Teaching Assistant for the Graduate level class: Applied Data Science 517
- Assist the professor in giving lectures, preparing materials, and grading assignments
- · Teach the students additional fundamentals such as introduction to coding, setting up an IDE, and basics of machine learning
- Facilitate the learning of data visualization, machine learning, artificial intelligence, and the data science pipeline with a healthcare emphasis

PUBLICATIONS

Ha CI, Desai AK, **Waterfield J**, Kazi ZB, Austin SL, Bossen EH, Kishnani PS, Buckley AF. "Outside the Fiber: Interstitial Pathology of Skeletal Muscle in Infantile Pompe Disease". *Molecular Genetics and Metabolism. January*—February, 2017. Volume 120, Issues 1-2, Pages S60–S61. DOI: 10.1016/j.ymgme.2016.11.136

Ropelewski, A. J., Rizzo, M. A., Swedlow, J. R., Huisken, J., Osten, P., Khanjani, N., **Waterfield J.**, ... & Huggins, W. (2021). Essential metadata for 3D BRAIN microscopy. *arXiv preprint arXiv:2105.09158*.