Danielle E. Williams

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SPECIALIZED SKILLS

Technical: Python/Pandas/Scikit/Numpy, SQL/PostgreSQL, Bash, Git, Unix, Tableau, Java, C, Ruby/Rails, SPSS, R
Languages: English (native), Spanish (conversational), Japanese (intermediate), French (novice)

PROFESSIONAL EXPERIENCE

Data Engineer

New York Genome Center, New York *January 2017 - Present*

- Analyze clinical tools to determine efficient ways to allocate resources and ultimately decrease latency in job performance on our batch-queueing system and increase overall throughput
- Build and maintain a database of 3 million+ records based on historical data from our transfer service that will be used to backfill our next generation sequencing tools and design a UI for internal customers to query records
- Automate organization's large scale data transfer service, and identify recommended ways to improve the efficiency of our data transfers through analyzing historical transfer metadata to service internal users
- Collaborate with bioinformatics scientists, IT, and project managers to define requirements and specifications for data analysis workflows, scientific data access, and the triage of issues in clinical workflows

Peer Mentor and Research Assistant

Data Analysis and Social Inquiry Lab, Grinnell College *August 2015 – May 2016*

- Directed students in applying research design methods, using statistical software, and finding data insights
- Formatted and cleaned large data sets for use in faculty research projects
- Presented in-class workshops for students to help improve their technical and analytical skills

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RELATED COURSE ACTIVITIES

Design and Analysis of Data Systems *January 2020 - present*

- Explore database design principles (e.g ACID, CAP theorem) to improve relational modeling skills as well as to understand the trade-offs that occur with each principle at varying levels of scale
- Utilize concepts pertaining to query compilation and execution, concurrency and general transaction management to better optimize query performance on assorted types of data stores

Team Software Development *January 2016 - May 2016*

- Developed a web application to better the Iowa community by allowing users to easily access local resources
- Practiced agile development techniques, working in iterative cycles to complete specific tasks with my peers

Analysis and Design of Experiments, and Statistical Modeling *January 2015 - December 2015*

- Investigated research questions throughout the semester using techniques from areas such as Bayesian statistics, risk analysis and regression modeling
- Examined experiments from varied disciplines to determine what makes effective experimental design
- Explored and implemented knowledge of statistical techniques to effectively analyze experimental data

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EDUCATION

Bachelor of Arts in General Science - Mathematics *August 2012 - May 2016*

Grinnell College, Grinnell, IA

- Related Coursework: Team Software Development, Research Methods (Psychology), Discrete Structures, Analysis and Design of Experiments, Statistical Modeling, Social Network Analysis, Algorithms and Object-Oriented Design, Linear Algebra, Functional and Imperative Problem Solving, Machine Learning
- CAUSE Undergraduate Class Project Competition 2016, Honorable Mention
  Predicting the Amount of Money a Kickstarter Campaign Will Raise