COLTON ROBBINS

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OBJECTIVE

Results-oriented data specialist with 6+ years' experience in analytical research. Skilled at identifying trends, patterns, and opportunities for improvement. Seeking a challenging role where I can make a meaningful impact on business outcomes.

TECHNICAL SKILLS

Programing - SQL, Python, R, Git, Linux, AWS

Data visualization – Tableau, Looker, Plotly

Statistics - Linear regression, Principle component analysis, Hypothesis testing, Machine Learning

EXPERIENCE

FRED HUTCHINSON CANCER CENTER, Seattle, WA

Research Data Specialist, March 2023 – January 2024

- Implemented machine learning models on large-scale biological datasets (500+ million data points) to improve cell type classification by 20%.
- Developed automated data pipelines using Python and R, reducing processing time for gene expression data sets by 60% and ensuring data quality and integrity.
- Designed interactive dashboards using 3 different SQL databases connected to Tableau to visualize complex experimental data, enabling stakeholders to quickly identify trends and make data-driven decisions.
- Automated large dataset processing with AWS cloud computing in conjunction with workflow management software to achieve efficient and scalable data analysis.
- Presented technical research findings in over 40 weekly meetings and led discussions in 3 departmental meetings.
- Successfully managed 5 concurrent projects within a 6-month period, achieving a 100% completion rate.

NANOSTRING TECHNOLOGIES, Seattle, WA

Computational Biologist, December 2021 – November 2022

- Architected and deployed a cloud-based SQL database solution for real-time quality control monitoring and anomaly detection of high-throughput molecular assays, resulting in a 25% increase in data throughput and improved assay reliability.
- Spearheaded the development of end-to-end automated data analysis pipelines integrating data extraction, transformation, and loading (ETL) processes, significantly reducing manual intervention, minimizing human error, and accelerating time-to-insight for large-scale experimental datasets.
- Performed comprehensive statistical analyses including ANOVA, t-tests, and regression modeling to optimize assay parameters, enhance the sensitivity and specificity of molecular diagnostics by 20%.
- Successfully developed and validated a novel spatial biology prototype, exceeding target performance metrics by 12% and accelerating the product's path to commercialization.
- Collaborated effectively with a team of 15+ biologists, engineers, chemists, and software developers to translate complex biological questions into actionable data analysis plans.
- Presented key experimental findings at over 20 bi-weekly team meetings and 2 quarterly departmental reviews using interactive Tableau and Looker Studio dashboards.

WASHINGTON STATE UNIVERSITY, Pullman, WA

Molecular Biologist, September 2018 – August 2021

- Developed a novel classification pipeline that improved cell population segmentation accuracy by 18%, enabling more precise identification of rare cell types in multi-species datasets.
- Analyzed large biological datasets (e.g., 700+ million data points) using NumPy and Pandas, uncovering statistically significant gene expression patterns.
- Integrated automated cell counting software into existing data collection protocols, reducing manual data entry errors by 30% and improving data accuracy by 10%.

EDUCATION

Master of Science (M.S) Molecular Biology
Washington State University, Pullman, WA

Bachelor of Science (B.S) in Biochemistry - magna cum laude
Washington State University, Pullman, WA

PUBLICATIONS

Ciccarelli, M., Giassetti, M. I., Miao, D., Oatley, M. J., **Robbins, C.**, Lopez-Biladeau, B Oatley, J. M. (2020). **Donor-derived spermatogenesis following stem cell transplantation in sterile NANOS2 knockout males**. Proceedings of the National Academy of Sciences, 117(39), 24195-24204

Du, G., Oatley, M. J., Law, N. C., **Robbins, C.**, Wu, X., & Oatley, J. M. (2021). **Proper timing of a quiescence period in precursor Prospermatogonia is required for stem cell pool establishment in the male germline.** Development, 148(9)

PRESENTATIONS

Washington State University Center for Reproductive Biology Retreat
September 2019, Leavenworth, WA
Developmental origins of spermatogonial stem cells

Gordon Conference on Germinal Stem Cell Biology
May 2019, Sha Tin, Hong Kong
Relationship between Dppa5a expression and spermatogonial stem cell fate determination in fetal prospermatogonia