Sarah Warda

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PROFESSIONAL SUMMARY

Analytical and detail-oriented professional with a strong foundation in data science and a background spanning clinical research, healthcare analytics, and machine learning. Earned a Graduate Certificate in Data Science from Johns Hopkins University (3.96 GPA) while sharpening technical skills in SQL, Python, and statistical modeling during a brief career pause. Proven success supporting risk adjustment and medical coding operations through SQL Server data analysis, Excel dashboard development, and cross-functional collaboration. Demonstrated ability to deliver data-driven insights in fast-paced healthcare environments and contribute to high-impact research. Passionate about transforming complex datasets into actionable strategies that improve health outcomes and operational efficiency.

EDUCATION

Johns Hopkins University – Whiting School of Engineering **February 2021 – December 2023**
Graduate Certificate*, Major:* ***Data Science;*** 3.96 GPA *Baltimore, MD*

Rutgers University – School of Arts and Sciences **September 2014 – May 2018**
Bachelors*, Major:* ***Genetics****, Minor: Psychology; Cum Laude* honors; 3.5 GPA *New Brunswick, NJ*

WORK EXPERIENCE

Cigna - Comprehensive Medical Chart Review (CMCR) project **January 2023 – June 2023**
Business Analytics Analyst *Remote | Hartford, CT*

- Supported the Coding Operations and Risk Adjustment teams, focusing on the Comprehensive Medical Chart Review (CMCR) project to ensure accurate diagnostic code capture across regional health markets.
- Leveraged SQL Server to query, manage, and maintain large datasets containing patient and provider information for analysis and reporting.
- Built and maintained interactive dashboards and reports using Microsoft Excel (including pivot tables, VLOOKUP, and advanced formulas) to track performance metrics and project milestones.
- Collaborated with the Lead Data Analyst and cross-functional teams to perform vendor reconciliations and deliver data-driven insights to support enterprise reporting initiatives.
- Ensured timely and accurate reporting to help meet regulatory and internal deadlines across multiple markets.

Memorial Sloan Kettering Cancer Center **May 2018 – September 2020**
Research Technician *New York, NY*

- Statistical analysis & data visualization of Tumor Progression Models to assess gene manipulation significance.
- Implemented drug studies from dosing to analysis of drug efficiency; Drug studies included chemotherapy, gene therapy via viral vectors, & immunotherapy in an oncology research setting.
- Created orthotopic models surgically for gene knockout comparisons & maintained patient derived xenografts within a database & the physical colony while maintaining patient confidentiality in accordance with HIPAA.
- Supported senior lab members with creation & enhancement of research procedures in vivo & in vitro.
- Prepared presentations each quarter using thorough charts, graphs, & tables to represent new findings.
- Managed 5+ research projects at a time with superior time management & organization.

Rutgers University – Department of Neuroscience **May 2017 – May 2018**
Research Assistant *New Brunswick, NJ*

- FACs analysis & visualization of Immune cell responses/trends to manipulate RNA-specific mechanisms.
- Awarded Aresty Research fellowship for independent research projects. Generated representative visualizations highlighting research results for grant presentation in the Spring 2018 symposium.

Rutgers University – National Institute for Early Education Research **September 2015 – May 2018**
Research Assistant *New Brunswick, NJ*

- Entered & analyzed survey & psychological test data using statistical models created in SPSS.
- Assisted with academic research used to inform & shape policies for high-quality, early education for young children across the country.

PORTFOLIO PROJECTS

Predicting Covid-19 Patient Mortality via Logistic Regression

- ETL/EDA; linear model building process; evaluation of linear model via Cross Validation, Bayesian methods & Learning Curves; Decision Tree classifier & comparison with Logistic Regression model using validation curves.
- Python and relevant libraries, SQLite

Decision Tree Classifier & Tableau Dashboard for Breast Cancer Mortality Predictions

- ETL/EDA; two dashboards to visualize the most significant predictors of patient status and make predictions about patient prognosis using Decision Tree classifier; additional tree visualization via Graphviz.
- Python and relevant libraries, Tableau, Excel

Building a Forecast Model using Data derived from Redfin Housing Market Database

- ETL/EDA; SQL queries for basic analysis; forecasting models including Simple Exponential Smoothing, Holt's Trend Corrected Smoothing, and Holt's-Winter in addition to model comparison.
- Python and relevant libraries, MySQL

SKILLS

- **Skills:** Python (i.e. NumPy, SciPy, Pandas, scikit-learn, etc.); SQL (i.e. SQL Server, MySQL); Docker, Jupyter Notebooks, Machine Learning (i.e. Linear Models, Decision Trees, K-means); Deep Learning (i.e. TensorFlow), revenue modeling/forecasting, relational databases, Graphpad Prism, FlowJo, Neural Networks, Tableau, Clinical data handling, in-vivo/in-vitro research, Microsoft Office (i.e Excel including Pivot Tables, Vlookups, Interactive Dashboards, etc)

RESEARCH & PUBLICATIONS

[1] Patel, A. J., **Warda, S.**, Maag, J. L., Misra, R., Miranda-Román, M. A., Pachai, M. R., Lee, C. J., Li, D., Wang, N., Bayshtok, G., Fishinevich, E., Meng, Y., Wong, E. W., Yan, J., Giff, E., Pappalardi, M. B., McCabe, M. T., Fletcher, J. A., Rudin, C. M., . . . Chi, P. (2022). PRC2-Inactivating mutations in cancer enhance cytotoxic response to DNMT1-Targeted therapy via enhanced viral mimicry. *Cancer Discovery*, *12*(9), 2120–2139. https://doi.org/10.1158/2159-8290.cd-21-1671

[2] Yan, J., Chen, Y., Patel, A. J., **Warda, S.**, Lee, C. J., Nixon, B. G., Wong, E. W., Miranda-Román, M. A., Yang, N., Wang, Y., Pachai, M. R., Sher, J., Giff, E., Tang, F., Khurana, E., Singer, S., Liu, Y., Galbo, P. M., Maag, J. L., . . . Chi, P. (2022). Tumor-intrinsic PRC2 inactivation drives a context-dependent immune-desert microenvironment and is sensitized by immunogenic viruses. *Journal of Clinical Investigation*, *132*(17). https://doi.org/10.1172/jci153437

[3] Chi, P., Qin, L., Nguyen, B., Kelly, C. M., D'Angelo, S. P., Dickson, M. A., Gounder, M. M., Keohan, M. L., Movva, S., Nacev, B. A., Rosenbaum, E., Thornton, K. A., Crago, A. M., Yoon, S., Ulaner, G., Yeh, R., Martindale, M., Phelan, H. T., Biniakewitz, M. D.,**Warda, S.**, . . . Tap, W. D. (2022). Phase II trial of imatinib plus binimetinib in patients with Treatment-Naive Advanced Gastrointestinal Stromal Tumor. *Journal of Clinical Oncology*, *40*(9), 997–1008. https://doi.org/10.1200/jco.21.02029

[4] Miranda-Román, M. A., Lee, C. J., Fishinevich, E., Ran, L., Patel, A. J., Yan, J., Khudoynazarova, M. N., **Warda, S.**, Pachai, M. R., Chen, Y., & Chi, P. (2024). MEK inhibitors lead to PDGFR pathway upregulation and sensitize tumors to RAF dimer inhibitors in NF1-deficient malignant peripheral nerve sheath tumor (MPNST). *Clinical Cancer Research*. https://doi.org/10.1158/1078-0432.ccr-24-1750

[5] Wang, N., Pachai, M. R., Li, D., Lee, C. J., **Warda, S.**, Khudoynazarova, M. N., Cho, W. H., Xie, G., Shah, S. R., Yao, L., Qian, C., Wong, E. W. P., Yan, J., Tomas, F. V., Hu, W., Kuo, F., Gao, S. P., Luo, J., Smith, A. E., . . . Chen, Y. (2025). Loss of Kmt2c or Kmt2d primes urothelium for tumorigenesis and redistributes KMT2A–menin to bivalent promoters. *Nature Genetics*, *57*(1), 165–179. https://doi.org/10.1038/s41588-024-02015-y

[6] Wang, N., Pachai, M. R., Li, D., Lee, C., **Warda, S.**, Xie, G., Qian, C., Wong, W. P. E., Yan, J., Hu, W., Smith, A., Ge, K., Chandarlapaty, S., Iyer, G. V., Rosenberg, J. E., Solit, D. B., Ai-Ahmadie, H. A., Chi, P., & Chen, Y. (2022). Abstract B003: Inactivation mutations of Kmt2c/d license a molecular "field effect" and prime the urothelium for tumorigenesis. *Cancer Research*, *82*(23_Supplement_2), B003. https://doi.org/10.1158/1538-7445.cancepi22-b003