Sarah Warda

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EDUCATION

Johns Hopkins University – Whiting School of Engineering **September 2020 – December 2023**
Masters of Science*, 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*

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

WORK EXPERIENCE

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 manipulated RNA-specific mechanisms.
- Awarded Aresty Research fellowship for independent research project. Generated representative visualizations highlighting research results for grant presentation in 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.

SKILLS

- **Skills:** Python (i.e. NumPy, SciPy, Pandas, scikit-learn, etc.); SQL (i.e. MySQL, PostgreSQL); 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)

RESEARCH & PUBLICATIONS

[1] Patel, Amish J., **Warda, Sarah**, Maag, Jesper L. V., Misra, Rohan, Miranda-Román, Miguel A., Pachai, Mohini R., Lee, Cindy J., Li, Dan, Wang, Naitao, Bayshtok, Gabriella, Fishinevich, Eve, Meng, Yinuo, Wong, Elissa W. P., Yan, Juan, Giff, Emily, Pappalardi, Melissa B., McCabe, Michael T., Fletcher, Jonathan A., Rudin, Charles M., … Chi, Ping. (2022). PRC2-Inactivating Mutations in Cancer Enhance Cytotoxic Response to DNMT1-Targeted Therapy via Enhanced Viral Mimicry. In Cancer Discovery (Vol. 12, Issue 9, pp. 2120–2139). American Association for Cancer Research (AACR). https://doi.org/10.1158/2159-8290.cd-21-1671

[2] Yan, Juan, Chen, Yuedan, Patel, Amish J., **Warda, Sarah**, Lee, Cindy J., Nixon, Briana G., Wong, Elissa W. P., Miranda-Román, Miguel A., Yang, Ning, Wang, Yi, Pachai, Mohini R., Sher, Jessica, Giff, Emily, Tang, Fanying, Khurana, Ekta, Singer, Sam, Liu, Yang, Galbo, Phillip M., Jr., Maag, Jesper L. V., … Chi, Ping. (2022). Tumor-intrinsic PRC2 inactivation drives a context-dependent immune-desert microenvironment and is sensitized by immunogenic viruses. In Journal of Clinical Investigation (Vol. 132, Issue 17). American Society for Clinical Investigation. https://doi.org/10.1172/jci153437

[3] Chi, P., Qin, L. X., 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 : official journal of the American Society of Clinical Oncology, 40(9), 997–1008. https://doi.org/10.1200/JCO.21.02029