

INDUSTRY EXPERIENCE

- Data Scientist, Scripps Research Institute 11/2017 – Present
- Analyzed Fitbit Data and currently authoring publication on understanding yearly heart rate and exercise patterns (prediction of user activity and heart rate change over time) for 97,000 Fitbit users.
 - Utilized google maps api to reverse geocode, created algorithm based on weekly and daily activity to impute missing exercise values.
 - Efficiently merged thousands of files and produced figures showing wearable usability for a first author publication.
 - Automated data reporting using Python (Pandas) and R.
- Data Scientist, Daymon Worldwide 01/2017 – 10/2017
- Automated data reporting using Python (Pandas), R, and Redshift (SQL).
 - Produced interactive data visualizations using Tableau and Python.
- Data Analyst, Qualcomm Institute 01/2013 – 01/2017
- Automated data collection and analysis using Python (SciPy, NumPy, Pandas) and MATLAB
 - Web scraping health fundraising data from GoFundMe.com using Python, querying and visualizing data to quantify funding incentives and ethical concerns, and predicting funding success per individual campaign (logistic regression).
 - Produced 9 coauthored publications in peer reviewed journals, 600+ citations (h-index: 9), 1 publication featured on journal cover.
- AWS/Data Science Intern, CME Group 06/2016 - 09/2016
- Made deep learning tutorials based on Udacity's Deep Learning Course (logistic regression, gradient descent, convolutional and recurrent neural networks).
 - Lead TensorFlow based deep learning workshops for CME employees.
 - Made public Amazon Machine Images with TensorFlow, Anaconda, and Jupyter.
- Data Analyst Intern, Cymer 06/2015 - 09/2015
- Designed MATLAB GUI tools to automate SQL queries (MSSQL) and to automatically generate data reports from sensor data.
 - Presented to CEO and earned my coworkers recognition at the Cymer All-Hands Meeting

Teaching

- Data Analytics using Python Instructor, UCSD Extension 01/2019 – Present
- Taught in person and online cohorts: <https://extension.ucsd.edu/courses-and-programs/data-analytics-using-python>
 - Topics covered in the course include: Python Basics, Pandas, Matplotlib, Logistic Regression, Decision Trees, Random Forests, and Unsupervised Learning.
- Python for Data Visualization Instructor, LinkedIn Learning 01/2019 – Present
- Created an online class: <https://www.linkedin.com/learning/python-for-data-visualization>
 - Topics covered include the advanced usage of the Pandas, Matplotlib, and Seaborn libraries for data visualization.
 - Course has over 3000 views.
- Data Science Instructor, General Assembly 07/2017 – 10/2017
- Taught in person and online cohorts of 25 Booz Allen Data Analysts on Python, Machine Learning (KNN, Logistic Regression, Decision Trees, etc), and Data Science
 - Gave lectures on Git, Pandas, and Web Scraping.

SKILLS

Programming: Python, R, MATLAB, Bash Shell Scripting, JavaScript, HTML, CSS, C++, JAVA
Database Management: Redshift, MSSQL, PostgreSQL, MySQL
Other Technologies: Hadoop, Hive, Hue, HBase, Spark (PySpark), Amazon AWS (EC2, S3, EMR), Tableau

PROJECTS

Data Science Youtube Channel and Blog | <https://www.youtube.com/c/MichaelGalarnyk>

- YouTube Channel has over 1 million total views and over 7,000 subscribers. Accompanying [blog](#) gets over 7000+ views daily and has been featured on DataCamp, KDnuggets, Towards Data Science, and more.
- [Python web scraping blog post](#) has appeared on Hacker News and is now used as an example dataset on Scrapinghub.com
- Python and machine learning tutorials.
- Installation videos, bash scripting, version control (Git), AWS, and Python environment management tutorials
- R coding and review blog series on the Coursera John Hopkins Data Science Specialization.

San Diego Big Data Hackathon | <https://sandiegohearts.github.io/>

- 2nd Place out of 30 teams.
- Made interactive San Diego heart health map using Python (Pandas), Tableau, R (data.table, ggmaps), and a small amount of JavaScript to help San Diego county locate unhealthy areas.
- Utilized Yelp API to help map food choices and hospital locations to help San Diego epidemiologists.

PUBLICATIONS

10. **M. Galarnyk**, G. Quer, K. McLaughlin, L. Ariniello, S. Steinhubl. "Usability of a wrist-worn smartwatch in a direct-to-participant randomized pragmatic clinical trial". Karger Digital Biomarkers. 2019, in press.

9. V. Singh, K. Kaufmann, J. Orozco, J. Li, **M. Galarnyk**, G. Arya, J. Wang. "Micromotor based on-off Fluorescence Detection of Sarin and Soman Simulants". Chem. Commun. 2015.

8. V. Singh, B. Jurado-Sánchez, S. Sattayasamitsathit, J. Orozco, J. Li, **M. Galarnyk**, Y. Fedorak, J. Wang. "Multifunctional Silver-Exchanged Zeolite Micromotors for Catalytic Detoxification of Chemical and Biological Threats". Adv. Funct. Mater. 2015.

7. J. Orozco, G. Pan, S. Sattayasamitsathit, **M. Galarnyk**, J. Wang. "Micromotors to capture and destroy anthrax simulant spores". Analyst. 2015. 140, 1421-1427.

6. B. Jurado-Sánchez, S. Sattayasamitsathit, W. Gao, L. Santos, Y. Fedorak, V. Singh, J. Orozco, **M. Galarnyk**, J. Wang. "Self-Propelled Activated Carbon Janus Micromotors for Efficient Water Purification". Small. 2015. 11(4), 499-506.

5. Z. Wu, T. Li, J. Li, W. Gao, T. Xu, C. Christianson, W. Gao, **M. Galarnyk**, Q. He, L. Zhang, J. Wang. "Turning Erythrocytes into Functional Micromotors". ACS Nano. 2014. 8(12), 12041-12048.

4. V. Garcia-Gradilla, S. Sattayasamitsathit, F. Soto, F. Kuralay, C. Yardimci, D. Wiitala, **M. Galarnyk**, J. Wang. "Ultrasound-Propelled Nanoporous Gold Wire for Efficient Drug Loading and Release". Small. 2014. 10(20), 4154-4159.

3. D. Vilela, J. Orozco, G. Cheng, S. Sattayasamitsathit, **M. Galarnyk**, C. Kan, J. Wang, A. Escarpa. "Multiplexed immunoassay based on micromotors and microscale tags". Lab on a Chip. 2014. 14(18), 3505-3509.

2. S. Sattayasamitsathit, K. Kaufmann, **M. Galarnyk**, R. Vazquez-Duhalt, J. Wang. "Dual-enzyme natural motors incorporating decontamination and propulsion capabilities". RSC. Adv. 2014. 4, 27565-27570.

1. J. Orozco, B. Jurado-Sanchez, G. Wagner, W. Gao, R. Vazquez-Duhalt, S. Sattayasamitsathit, **M. Galarnyk**, A. Cortés, J. Wang. "Bubble-propelled micromotors for enhanced transport of passive tracers". Langmuir. 2014. 30(18), 5082-5087.

EDUCATION

University of California, San Diego

M.S. Data Science and Engineering

2018

B.S. Nanoengineering

2015