Daniel Wood

Data Scientist · Neuroscientist

Chicago, IL

224-256-0994 | danielkentwood@gmail.com | https://github.com/danielkentwood | https://www.linkedin.com/in/danielkentwood/

Skills

Techniques	Machine Learning (classical time-series, tree-based ensemble methods, regression and classification models, clustering), dimensionality reduction (t-sne, PCA), model explainability (LIME, Shapley values), NLP (knowledge graphs, topic models), statistics (hypothesis testing, experimental design), DSP (FFT, wavelets)
Packages	SK-Learn, Pandas, Numpy, Selenium, BeautifulSoup, Statsmodels, Plotly, Seaborn, Dash, Streamlit, NLTK, SpaCy, TensorFlow, pySpark
Programming	Python, MATLAB, HTML5, CSS, SQL, Linux Shell
DevOps/Cloud	Docker, Git, AWS, Heroku

Experience

Sharpest Minds
Chicago, IL

Data Science Fellow — *5/2020 - Present*

- Developed a python package and web app that provides decision support for diabetics. **(https://github.com/danielkentwood/sugartime)**
- Collaborating with CTO at ProteinQure.

Exponent
Chicago, IL

Scientist — *3/2019 - 10/2020*

- Performed human factors consulting (litigation support, forensics, product safety/usability) for several Fortune 500 companies.
- Project management (budgeting, billing, quality control, data collection, coordinating client communication, project pacing, writing expert opinions). Managed 15 projects with team sizes between 4 to 12 consultants. I maintained a perfect record of favorable legal outcomes for clients. Also maintained a highly efficient project realization (i.e., hours billed divided by hours worked) of >99%.
- Built a Streamlit dashboard for tracking month-to-month employee performance company-wide.
- Developed python apps for automating critical tasks, resulting in up to 10X speedups in execution time and saving clients thousands of dollars.

Northwestern University
Chicago, IL

Postdoctoral Research Fellow — *1/2014 - 3/2019*

- Neural mechanisms of search behavior in monkeys and mice. Published 2 peer-reviewed articles. Received 2 grants ($150K in funding).
- Developed novel eye tracking rigs and experimental control applications (in Python & C++) for monkeys and mice.
- Used PCA, clustering, time-series analysis, and GLM on a 3 TB data set of behavioral and neural recordings to understand how visual preferences of neurons change depending on the behavioral state of the animal.**(https://github.com/danielkentwood/NERF)**.

Selected Projects

SugarTime

https://github.com/danielkentwood/sugartime

- The SugarTime package helps diabetics optimize insulin dosage to counteract a meal.
- Developed ETL pipeline for patient data from wearable devices (continuous glucose monitor and insulin pump).
- Developed custom multioutput autoregressive time-series model to forecast blood glucose levels.
- Deployed as a Streamlit app on Heroku.

SearchMo

https://github.com/danielkentwood/SearchMoDB

- SearchMoDB allows users to query the frequency of N-grams over time within a database of Mormon (LDS) periodicals.
- Scraped content from 5 unique sources using BeautifulSoup and Selenium.
- Deployed as a Dash app on Heroku.

Education

University of Western Ontario
London, ON, CAN

MS & PhD in Neuroscience — *9/2007 - 5/2009, 9/2009 - 12/2013*

- Visuomotor decision-making in humans. Published 12 peer-reviewed articles. Received 4 grants ($137K in funding).

Brigham Young University
Provo, UT

Honors BA in Philosophy (Minors in Logic, Music, and Psychology) — *9/2001 - 5/2006*