

# TOVIAH MOLDWIN

## Data Science, Machine Learning

Email: [tmoldwin@gmail.com](mailto:tmoldwin@gmail.com)

Phone: (+972) 0587762564

I am a data scientist with experience in the pharmaceutical industry and a Ph.D. in computational neuroscience. My academic and industry work involved extensive hands-on coding experience for data science, data visualization, artificial intelligence (AI), machine learning, and simulations for scientific computing. I also have experience in product management and supervising teams in the process of turning an idea into a fully-formed product.

## LANGUAGES

- English (native speaker, US citizen)
- Hebrew

## SKILLS

- Python
- Java
- SQL
- Writing, communication, and public speaking
- Matlab
- Pandas
- Git
- Cursor
- Pytorch
- Full stack web development

## LINKS

[LinkedIn](#)

[GitHub](#)

[Google Scholar](#)

[Blog](#)

## EXPERIENCE

### Computational Neuroscience Researcher

Jun 2016 – present

ELSC, Hebrew University of Jerusalem

- Developed a series of probe tasks and a framework for intuitive transformer interpretability ([Github](#)).
- Performed computer vision and machine learning-based classification of electron microscopy images of synapses in the mouse brain. Led project for big data (~100 GB) analysis of nanoscale brain imaging dataset of tens of thousands of neurons/millions of synapses ([Github](#)).
- Performed biophysical and neural network simulations to understand the mechanisms network activity and learning and plasticity in real biological neurons ([PLOS CB](#), [JOCN](#), [eNeuro](#), [Frontiers in CN](#))
- Developed novel brain-inspired machine learning algorithms ([PLOS CB](#)).

### Senior AI Architect

Oct 2023 – Present

NotAZombie: Dating for People with Brains

Designed and developed an adaptive NLP-based matching system for dating based on user behavior and text input, using open-source GenAI LLMs. Implemented novel scoring metrics for matching systems. Created interactive visual dashboard for experimenting with different matching algorithms. Integrated matching system with front and back end. Owned full stack web development and deployment at [NotAZombie.net](#).

### Pharmaceutical Data Scientist: Medical Cannabis

Jul 2018 – Feb 2021

Bazelet Pharmaceuticals

- Used statistical and machine learning models and created data visualizations to discover chemical properties of different medical cannabis strains associated with improved patient outcomes. Reported to CSO and CEO.

## EDUCATION

### Ph.D., M.Sc. in Computational Neuroscience

Feb 2024

ELSC, Hebrew University of Jerusalem

Thesis: [Plasticity and Learning Algorithms in Models of the Single Neuron](#)

### B.A. in Computer Science and Mathematics

May 2013

Yeshiva University (Honors Program), New York, NY, US

Honors Thesis: [Using Supervised Machine Learning to Linguistically Date Biblical Texts](#)