

# Matthew Bain, MSc

Data Scientist | Tableau, Databricks | Neuroscience Researcher Turned AI Developer

Data Scientist with 5+ years experience and certifications in Tableau and Databricks. My work spans neuroscience and assistive tech, with a focus on robust, interpretable ML. I help organizations understand their data and automate the hard stuff. I am seeking a role involving analytics and pipeline development.



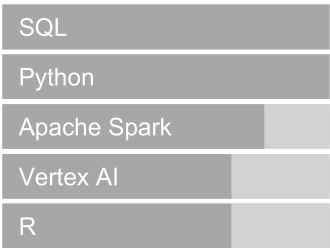
## Professional Experience

Present   Jan 2024	<b>Open Source Developer</b> Independent Toronto, ON <ul style="list-style-type: none"><li>Developed a software package [] simplifying data model design and ETL workflows (Python, Pandas)</li><li>Built a data management package [] automating job application workflows (R, Excel)</li><li>Implemented a data app [] displaying geospatial KPIs in space and time (Streamlit, Plotly)</li></ul>
Oct 2023   Jun 2023	<b>Data Scientist</b> VocaLinks Inc. Toronto, ON <ul style="list-style-type: none"><li>Created and communicated market breakdowns and technical tutorials (R Markdown, Python) on 4 AI-assisted assistive technology products, facilitating data-driven discussions among industry leaders</li><li>Distilled key statistical insights in hearing research into visually compelling reports (ggplot (R), Seaborn), driving a 100% increase in sales of an assistive listening product</li><li>Designed the data layer of an Azure speech recognition data center, enabling rapid delivery of meaningful analytics to 200+ customers via the cloud</li></ul>
Aug 2022   Sep 2021	<b>Research Analyst</b> University of Western Ontario London, ON <ul style="list-style-type: none"><li>Designed scalable online experiments (AWS, Amazon MTurk, JavaScript) to expedite data collection for 3 auditory neuroscience projects, yielding 2 publications and a robust cloud infrastructure</li><li>Provided multivariate statistical modeling support for research on neural signatures of epilepsy, laying the groundwork for automated labeling of 10+ hours of multimedia stimuli (Python, GCP)</li></ul>
Aug 2021   Jul 2018	<b>Computational Cognitive Neuroscientist</b> University of Western Ontario London, ON <ul style="list-style-type: none"><li>Designed and deployed 11 experiments assessing neural speech processing in 300+ research subjects</li><li>Developed a time series analysis toolbox (R, MATLAB) to measure hearing impairment through brain imaging, enhancing diagnostic sensitivity by a factor of 2</li></ul>
Apr 2021   Sep 2018	<b>Graduate Teaching Assistant</b> University of Western Ontario London, ON <ul style="list-style-type: none"><li>Directed 4 weekly research methods and statistics labs for 100+ undergraduate neuroscience students, leading to a nomination recognizing excellence in teaching and mentorship</li></ul>

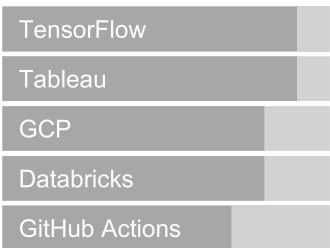
## Contact

Ontario  
[Personal Website](#)  
[GitHub](#)  
[LinkedIn](#)

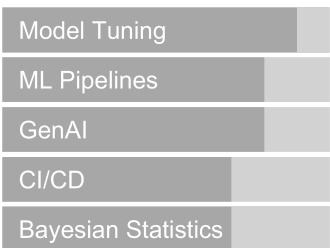
## Core tools



## Platforms



## Key competencies



Last updated on 2025-04-11.

Apr 2018	●	<b>Head of Finance</b>	
Apr 2015		Lorne Park Landscaping	📍 Mississauga, ON
		<ul style="list-style-type: none"> <li>• Co-founded and managed payroll, client invoicing, and government remittances for a successful partnership specializing in property maintenance, servicing 80+ clients and leading a team of 5 employees</li> </ul>	

## Education

Dec 2023	●	<b>BSc (Honours), Mathematics and Statistics</b>	
Sep 2021		McMaster University	📍 Hamilton, ON
Aug 2020	●	<b>MSc, Neuroscience</b> [ <a href="#">Thesis</a> ]	
Sep 2018		University of Western Ontario	📍 London, ON
Apr 2018	●	<b>BSc (Honours), Neuroscience</b>	
Sep 2014		McMaster University	📍 Hamilton, ON

## Certifications

Mar 2027	●	<b>Databricks Certified Data Engineer Associate</b> [ <a href="#">Certificate</a> ]	
Mar 2025		Databricks	
Feb 2027	●	<b>Tableau Certified Data Analyst</b> [ <a href="#">Certificate</a> ]	
Feb 2025		Tableau	
Expected May 2025	●	<b>Professional Machine Learning Engineer</b>	
		Google Cloud Platform (GCP)	
Expected May 2025	●	<b>Machine Learning Specialization</b> [ <a href="#">Certificate</a> ]	
		Stanford University	
Expected May 2025	●	<b>SQL Basics for Data Science Specialization</b>	
		UC Davis	

## Selected Projects

Present	●	<b>datopy (Data Management Python Package)</b> [ <a href="#">Documentation</a> ]	
Jan 2024		<ul style="list-style-type: none"> <li>• Implemented and maintain a package for handling unstructured data, providing a simple interface for data modeling, extraction, validation, and building ETL pipelines (Pandas, PyTest, Pydantic, GitHub Actions)</li> </ul>	
Present	●	<b>mlvizz (Machine Learning Data Visualization Package)</b>	
Apr 2024		<ul style="list-style-type: none"> <li>• Build Python interfaces for efficient, intuitive model selection, tuning, inspection, and ML pipelines through modular, object-oriented designs with built-in data validation (Scikit-learn, TensorFlow, ArviZ, PyMC, SciPy)</li> </ul>	
Present	●	<b>statvizz (Statistical Data Visualization Package)</b>	
Apr 2024		<ul style="list-style-type: none"> <li>• Build Python extensions unifying Pandas data summarization with Seaborn statistical plotting functionality for a unified, intuitive, fully transparent statistical plotting interface (Pandas, Seaborn, SciPy, Matplotlib)</li> </ul>	

