Brian Howard

Miramar, FL | (207) 254-9169 | brianvhoward@outlook.com | LinkedIn | GitHub

EDUCATION

Wentworth Institute of Technology, School of Computing and Data Science, Boston, MA
Bachelor of Science in Computer Science with a Minor in Data Science

***Relevant Coursework**:* Computer Science 1&2 • Calculus 1&2 • Discrete Math • Data Structures • Algorithms • Network Programming • Time Series • Fundamentals of Data Science • Databases • Probability & Stats for Engineers, Linear Algebra & Matrix Theory • Machine Learning • Enterprise Computing

SPECIALIZED SKILLS

Languages: Java, Python, R, SQL, YAML, JavaScript, HTML, CSS
Technicals: Git, Databricks, Jupyter Notebooks, Python libraries (Pandas, SciPy, NumPy, PyTorch, Matplotlib), Snowflake, Spark, AWS, GitHub, Tableau, Azure DevOps, Azure Data Lake, Jira, PowerShell, PhP MyAdmin, MySQL, MATLAB, RStudio, Wireshark
Hardware: Arduino, Raspberry Pi
Operating Systems: Microsoft Windows, Mac OS, Linux Ubuntu
Project Management Methodologies: Agile, Scrum, Waterfall

Full-Time Industry EXPERIENCE

Data Architect, *Bailey Solutions***,** Brockton**,** MA **September 2023 - October 2024**

- Developed and maintained secure HIPAA-compliant databases to manage patient records, treatment plans, and practice data.
- Designed frameworks to integrate Electronic Health Records (EHR) scheduling, and billing systems, improving data accessibility.
- Built and optimize data pipelines processing a 100k+ records, enabling real-time analytics for patient outcomes.
- Implemented robust data security measures, reducing unauthorized access risks by 40%.
- Designed scalable systems to accommodate increased patient volume and expansion into teletherapy services.

Data Engineer, *Senda Biosciences,* Cambridge, MA **Jan 2023 – May 2023**

- Designed automated ETL pipelines that processed large-scale structured and unstructured data.
- Built and maintained data lake architectures to support high-volume data ingestion and storage.
- Optimized Python scripts to improve processing efficiency by 35% and enhance scalability.
- Collaborated with data scientists and bioinformaticians to improve system performance.
- Ensured data integrity and validation, reducing errors in analytics reports by 25%.

Digitalization Operator, *Charles River Laboratories,* Wilmington, MA **August 2021 – May 2022**

- Automated data processing workflows, improving operational efficiency.
- Assisted in data remediation, validation, and ETL processes, ensuring high-quality data.
- Developed complex SQL queries to compare and reconcile datasets across multiple databases.
- Gained expertise in data transformation and management.

RELEVANT INDIVIDUAL PROJECTS

Ai Desktop Assistant, *School of Computing and Data Science*, Wentworth Institute of Technology (Senior Project)

- Developed a hands-free AI assistant using natural language processing (NLP) to interpret user requests and execute tasks.
- Built the frontend using Electron, JavaScript, HTML, CSS, and the backend with Flask, SQLite, Python.
- Utilized Google Cloud Speech API, Hugging Face, BERT, PyTorch, CrewAI, ChatGPT-3.5 Turbo to improve NLP performance.
- Implemented data analysis and model tuning using python, which increased response accuracy by 20%.

ML Automobile Project, *School of Computing and Data Science*, Wentworth Institute of Technology

- Developed ML models (KNN, Cross Validation, LOOCV, Simple Linear Regression, Decision Trees) for vehicle data analysis
- Built using R and RStudio, leveraging Kaggle datasets.
- Improving model accuracy by 15% through hyperparameter tuning

Premier League Data/Analytics Visualization, *Individual Project*

- Created data visualizations to analyze player performance for the 2022-23 Premier League season.
- Built using Python (Pandas, NumPy, Matplotlib) in Jupyter Notebooks.
- Analyzed match statistics, player movement, and team performance.

Leadership

- Wentworth Men's Soccer team member
- National Society of Black Engineers (NSBE) member