

Michael Walker

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Professional Summary: Data professional with 9 years of experience at the intersection of business and data. Proven track record of automating workflows, optimizing processes, and building interactive dashboards to support data-driven decision-making. With a strong R&D background and entrepreneurial mindset, my unique skill set is transforming complex data into actionable solutions that enhance efficiency, scalability, and business performance.

Technical Skills:

- **Languages & Libraries:** Python, Pandas, SQL, TensorFlow, LangChain, Scikit-learn, HTML, CSS
- **Frameworks & Tools:** Snowflake, Flask, Docker, Streamlit, GitHub, PyCharm, Jupyter Notebook, AWS (EC2)
- **Specialized Skills:** Natural Language Processing (NLP), Generative AI, Machine Learning

Work Experience:

Teal Harbor Properties LLC - Data Analyst & Cofounder

Jan 2022 - Present

- **Backend Development:** Designed and optimized a data pipeline using Python, SQL, and Snowflake, automating tenant tracking, work orders, and invoicing for 400+ properties, reducing manual work by 60%.
- **Predictive Modeling:** Developed investment models using Monte Carlo simulations and random forest regression to assess real estate opportunities, resulting in acquiring 35-Units and \$380K in annual revenue.
- **Data Analysis & Reporting:** Created dashboards integrating financial and operational data, automating 80% of bookkeeping tasks and reducing accounting time by 10+ hours/month to optimize cost allocation.

Hitachi High Tech - Lead Process Engineer

June 2017 - Jan 2022

- **Team Leadership & Analytics:** Achieved \$20M in plasma etch tool sales by leading 8 engineers in the successful completion of 35+ data-driven projects, utilizing statistical analysis and process optimization.
- **Process Automation:** Developed Python-based tools that automated data collection, measurement, and analysis, improving experiment throughput by 40% and reducing manual data entry.
- **Process Optimization:** Designed and executed plasma etch DOE studies to optimize yields, reduce variability, and improve efficiency using statistical methods like linear regression and standard deviations.

Hitachi High Tech - Plasma Etch R&D Engineer

Jan 2016 - May 2017

- **Innovative Process Design:** Developed two industry-leading plasma etch processes, securing significant customer interest and two patents, strengthening Hitachi's position in semiconductor manufacturing.
- **Research Analysis & Data Synthesis:** Created a team of 9 engineers to analyze 300+ research papers, uncover trends, extract insights, and drive process improvements.
- **Cross-Functional Collaboration:** Coordinated efforts across engineering, research, and marketing teams to streamline product development, driving a successful product launch to a new customer.

Portfolio Projects

GlucoPredict - Personalized blood-sugar monitoring for better health insights.

- Predictive model for glucose levels using CGM data, demographics, and biomarkers with 86% accuracy.
- Applied Python, Pandas, and XGBoost for data preprocessing, feature engineering, and model training.
- Built a web app prototype to simulate glucose predictions based on user input.

Healthspan Insights from *The Drive* Podcast – LLM powered Retrieval Augmented Generation(RAG) Project.

- Created a Retriever-Augmented Generation (RAG) system to interact with podcast transcripts on healthspan.
- Applied LangChain, Chroma, OllamaEmbeddings, Python, OpenAI for text retrieval and AI-driven responses.
- Developed a web app allowing users to ask personalized questions from specific episodes.

Education:

Springboard Data Science Certificate (7-Month Intensive Program)

May 2024 - Nov 2024

University of Florida - Bachelor of Science in **Physics**; Minor in **Mathematics**

Aug 2010 - June 2014