

W. Thomas Gorbett, II

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PROFILE

Dynamic and innovative Generative AI Developer with extensive experience in designing and deploying AI-driven solutions in a tech consulting environment. Proficient in Python, TypeScript, SQL, and Azure technologies, with a strong focus on developing intelligent chatbots and integrating AI capabilities into business processes. Excels in transforming natural language queries into actionable data insights and enhancing user experiences through sophisticated AI interactions. Committed to staying at the forefront of AI advancements and leveraging deep technical expertise to solve complex challenges and drive business value.

PROFESSIONAL EXPERIENCE

Velosio

Generative AI Developer

Cleveland, Ohio

January 2024 – Present

- Developed an advanced chatbot utilizing Retriever-Augmented Generation (RAG) to facilitate document retrieval and query answering, enhancing customer support operations for a client in the software development sector.
- Spearheaded the creation of an AI chatbot that converts natural language queries into SQL, interfacing with a fabric lakehouse data repository to provide dynamic data insights and reporting.
- Implemented a TypeScript application leveraging the DevOps API to monitor and display project statuses in real-time, enhancing project tracking and transparency.
- Engaged in continuous integration and continuous deployment (CI/CD) practices to streamline updates and maintenance of web applications using Azure Pipelines.
- Utilized Azure services extensively, including Web Apps, Function Apps, Key Vaults, Resource Groups, and Cognitive Services, to host and manage applications securely and efficiently.
- Conducted weekly briefings on the latest AI trends and research, maintaining an up-to-date knowledge base and positioning the team to leverage cutting-edge technologies and methodologies.
- Created a chatbot that integrates with report references to direct practice directors to the appropriate Microsoft Power BI dashboard for their needs.

Cleveland Clinic Foundation

Pathology & Lab Medicine Institute

Data Scientist

Cleveland, Ohio

April 2021 – January 2024

April 2021 – January 2024

- Research and Development
 - Contributed to the development of an IV contamination prediction model using AutoML. Developed thousands of models and evaluated them based on PPV among other metrics. Achieved results that outperformed previous studies from Mayo and MGH.
 - Spearheaded a study on AI detection difficulty through the analysis of historical abstracts from 1980-2020 on PubMed. Used BeautifulSoup for data extraction and huggingface's transformers package with OpenAI's RoBERTa-based AI detector. Observed trends in AI detection with changing linguistic patterns over decades. Listed as a contributing and the last author.
 - Participated in an ongoing study aiming to create an image classification model for the identification of Celiacs disease using duodenal biopsy WSIs.
 - Co-authored a published review paper on machine learning in pathology.
 - Contributed to a study on using AutoML for predicting indeterminate lupus, providing backup support.
 - Engaged in a research initiative using the STNG synthetic data generator, analyzing performance metrics across iterations and platforms.

- **Software Development**
 - Participated in the SDLC of the STNG platform for generating tabular synthetic datasets via neural networks. Multiple contributions included code review, bug identification, and the integration of LDAP authentication.
 - Developed a TypeScript-based application for k-means clustering analysis, allowing users to visualize clustering patterns through interactive visuals such as silhouette scores, elbow plots, and 2D/3D scatter plots.
 - Contributed to the creation of a hematology-focused chatbot by writing Python scripts to scrape relevant articles online.
 - Assisted in setting up LLMs like Meta's Llama2 on a Linux HPC.
 - Designed and developed a Python-based email program for automated recurring data extracts. Integrated functionalities to loop through tables, call views, and send out well-designed email notifications with attached data extracts.
 - Managing work within Azure DevOps Git environment as well as an Anaconda environment.
- **Business Analysis**
 - Providing ongoing support of time-sensitive, ad-hoc reporting through comprehensive SQL queries simultaneously utilizing Microsoft, Oracle, and Teradata DBMS.
 - Managing organization of PLMI Tableau environment which had 35 projects, 207 workbooks, 41 groups, and over 100,000 views among 614 unique users.
 - Building and maintaining various Tableau dashboards to support pathologists and lab techs.
 - Using data from the Epic EHR with a focus in the Beaker module.

Emergency Services Institute

Data Scientist

July 2018 – April 2021

January 2020 – April 2021

- Provided statistics for various research papers, including the role of EMS in a pandemic.
- Worked on a claim denial prediction model.
- Managed the work of two interns from May 2020 to April 2021.

Operations Analyst

July 2018 – January 2020

- Used data from the Epic ASAP module among other sources.
- Automated assorted procedures including ETL from SSMS to Teradata, ETL FTP'd Excel files from a mounted folder through SAS, among other reports.
- Managed access to ASAP data source through an automated SAS emailing system utilizing HTML and CSS.
- Built and maintained Tableau dashboards to support physicians and administration.
- Acted as the team's Jira Administrator, handling the setup of Kanban boards and other Agile functionalities.
- Provided ongoing support of time-sensitive, ad-hoc reporting through comprehensive SQL queries.

Supply Chain Management

Information Systems Coordinator

January 2016 – July 2018

July 2016 – July 2018

- Maintained data of locations, end users, approval codes, among other areas across the ERP.
- System administrator of EDI transmission and setup, including managing accounts for over 300 different vendors.
- Automated and created new processes for cleaning data and more accurate data entry using SQL Server Agent and custom queries.
- Worked closely with pharmacy team for setup unique to pharmaceutical products, including setup of custom approval codes, locations, and setup specific to 340B and WAC.
- Implemented and maintained systems at new hospital acquisitions.
- Uploaded Purchase Orders into system with an average of a million dollars per month.
- Archived Purchase Order lines from RNI with an average of a million dollars per month.

Supply Chain Co-Op

January 2016 – July 2016

- Worked with Sourcing Director and Analyst to analyze and redistribute pandemic equipment.
- Working with Senior Sourcing Analyst on RFPs to standardize medical carts.
- Working with Senior Business Analyst to develop Data Management guide for new analysts.
- Developed RFP for insulated shipping containers with Sourcing Director and Senior Analyst.
- Standardized data for tens of thousands of clinical products.\

Sea-Land Chemical Company

Westlake, Ohio

Intern

July 2012 - August 2015

- Worked full time in Product Management, Logistics, and Marketing departments during summer and winter breaks.
- Assembled research reports on different commercial chemicals to help drive revenue.
- Refined contact database for upload into Constant Contact.
- Acquired quotes from vendors and scheduled daily pick-ups.
- Maintained product data in ERP.
- Found accounts with most variance and contacted account managers for explanation.

SKILLS

Python – Proficient with packages relating to data manipulation and machine learning

SQL – Proficient with Teradata, T-SQL, PL/SQL including but not limited to the creation of tables, views, stored procedures, functions

TypeScript – Comfortable creating fully functioning web applications using Ionic in the Angular framework

SAS – Proficient with SAS in use of ETL, including but not limited to proc import, proc sql, macro looping

Tableau – Created and maintained dashboards for Cleveland Clinic with hundreds of thousands of views

Microsoft Suite – Proficient with all Microsoft Suite products including but not limited to Excel, Access, PowerPoint, and familiar with Visual Basic

CERTIFICATIONS

- **AZ-900:** Azure Fundamentals
- **AI-900:** Azure AI Fundamentals
- **AI-102:** Azure AI Engineer Associate
- **DP-203:** Azure Data Engineer Associate

RELEVANT SIDE PROJECTS

- **No Spoilers:** Developed an Ionic Angular application where a user can upload a novel and have a Generative AI model answer questions about the text, without spoiling anything from
- **NutriGuidance:** Developed an Ionic Angular application enabling users to enter in a description of what they ate and have a LLM provide macronutrients based on the description
- **Caster:** Developed an Ionic Angular application enabling users to search for ensemble-cast TV shows and rank cast members based on preference. Examples include shows like "The Office" and "Game of Thrones".
- **Trendsetter:** Developing a tool leveraging LLMs to assign decimal scores (0-1) signifying the significance of various topics annually. Analyzed compiled data to identify potential trends between seemingly unrelated subjects.
- **Kaggle-Package-Index:** Developed a tool that scrapes published notebooks on Kaggle to analyze and report the most frequently imported packages, offering insights into prevailing package usage trends within the Kaggle community.
- **Custom PC Build:** Successfully assembled a high-performance computer from individual components, optimizing for specific computational needs and ensuring compatibility and performance tuning.

EDUCATION

Cleveland State University

Master of Information Systems

Honors: *summa cum laude*

December 2020

John Carroll University

Bachelor of Science in Business Administration Dual

Majors: Logistics and Marketing

December 2015

EXTRACURRICULAR

- Board member for Hull House – Real Recovery, a non-profit organization that provides peer support services for anyone struggling with an eating disorder.
- Played piano since the age of six and attended the Cleveland Institute of Music – Young Composers Program in 2009.
- Four-year captain of John Carroll University rugby team.
- Served as an officer for Lyndhurst Toastmasters club in 2016.