M. Gabriel Denton

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EDUCATION

Vanderbilt University   **Nashville, TN**
Bachelor of Science, Computer Science; Bachelor of Arts, Economics   *May 2024*

Relevant Coursework: Software Design, Discrete Structures, Big Data, Operating Systems, Algorithms, Cloud Computing, Intro to AI, Computational Creativity, Social Network Analysis (GNNs), Project in Ai, Generative Ai & Transformers

WORK EXPERIENCE

Plato Systems   **San Francisco, CA**
Senior Solutions Engineer   *Aug 2024 – Present*
- Engineered the parallel management tool for our proprietary AI hardware, cutting delivery preparation times 90%
- Led analysis to map and integrate customer data into our medallion architecture for one of the top 5 global EMS companies
- Developed scalable and configurable algorithms to interpret diverse datasets delivering repeatable, customer-ready solutions
- Built & deployed a PySpark pipeline automating real-time data ingestion, transformation, and analysis for a major customer
- Created an application to debug customer-facing services and resolve data inconsistencies in reporting pipelines
- Automated reporting with a custom Docker image, CI/CD pipeline, and Databricks job for scheduled end-to-end execution

Optima Overnight and Stackry   **Remote**
Technology Consultant   *Aug 2023 – May 2024*
- Continued to enhance Stackry's platform by adding new capabilities and aiding their outsourced team on effective usage

Stackry   **Burlington, MA**
Software Development & Data Science Intern   *June - Aug 2023*
- Created a data warehouse in Snowflake, consolidating data from multiple sources and streamlining data pipelines
- Developed a reporting platform for real-time analytics, spanning: customer LTV, acquisition costs, ad campaign success, customer behavior predictions, and overall business health
- Performed ETL on millions of data points to develop a scalable and future-proof analytics platform for Stackry's internal use
- Identified and resolved a critical issue in Stackry's second largest market, saving approximately $10k/month

Zipper Mtl   **Nashville, TN**
Founder   *June 2021 - Dec 2022*
- Technical founder of Zipper app, a geolocation and event-based iOS application incorporated under Zipper Mtl LLC
- Architected and implemented a robust back-end system including support for messaging, events, notifications, and more
- Led a cross-disciplinary team of three at Vanderbilt and successfully expanded the app to a thousand weekly users

McLane Laboratory   **Falmouth, MA**
Software Engineering Intern   *June - Aug 2022*
- Developed a custom Python parser and query generator for advanced cytometer (IFCB) analysis enabling internal reporting
- Independently rewrote customer-facing humidity monitoring software in .Net 6. I further added cross-platform functionality (Windows, Mac, Linux), a new graph viewer for sensor data, and customizable email alerts for critical sensor thresholds
- Automated circuit quality testing by engineering a Python app improving product reliability and assuring standardized QA.

PROJECTS   https://github.com/MGabeD

Automated BA (Research Project)   *Automated SQL Generation - Python*   *Feb - May 2024*
- Setup multiple different modules for setting LLM context with RAG, Masks (both before and after), prompt tuning with pre-prompts and instruction sets, and a set of different models which could be used
- Tested multiple setups to see which yielded the best results and presented to Vanderbilt's Data Science Institute

Social Networks Final Project   *Temporal Link Prediction – Python (GNN)*   *Nov - Dec 2023*

Work Pulse   *App for Monitoring Productivity - Python & JavaScript*   *Sept - Dec 2023*
- Created Node.js backend, architected project structure, and wrote software for detecting user inputs & activity
- Setup MongoDB for the project, remote hosting for Node, AWS Lambda for batch analytics, and Jest for testing

Song Vault   *Web App For Sharing Music - JavaScript*   *March - May 2023*
- Developed Node.js / express backend, set up & managed MongoDB, and CI/CD with Ansible & Kubernetes

SKILLS

Skills: Python, C++, Swift, C#, JavaScript, Kubernetes, APIs, REST, Google Firebase, Snowflake, SQL, Pandas, MongoDB, Amazon Web Services (AWS), Node.js, TensorFlow, PyTorch, PySpark, scikit-learn, RAG, Docker, Graph Analytics & GNNs