



Tyler Hirn

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OBJECTIVE

Seeking a data science role in a forward-thinking organization where I can leverage my technological expertise and innovative problem-solving skills to drive data-driven decisions and positively impact the company's bottom line.

EDUCATION

Auburn University

Aug. 2018 – May 2023

- Double Major in Software Engineering and Psychology with Magna Cum Laude honors. GPA: **3.77**
- Dean's list, graduate-level courses in Machine Learning and Artificial Intelligence.

EXPERIENCE

Founder & Lead Data Scientist

Jun. 2023 – Present

Core Music

- Developed a cutting-edge music recommendation application in just **10 weeks**, resulting in **98 code commits** with **108,778 lines of code added**, targeting both Android and iOS using Flutter.
- Achieved top-tier accuracies of **96.6%, 86.0%, and 84.3%** with a multi-class song mood prediction model on a hand-collected dataset of **2,867** data points, leveraging deep NLP and Gradient Boosting techniques.
- Integrated and optimized a unique synergy between personal journaling and music, interfacing with Spotify's API for scalability and preparing the app for large-scale user adoption. Currently awaiting Spotify quota extension for public release.

Data Scientist & Research Coordinator

Jan. 2023 – May 2023

Department of Psychology | Auburn, AL

- Assisted in the collection and preprocessing of data for a study on AI chatbot-driven personality inferences, working with a dataset of **over 1,400** participants and utilizing advanced data analytics tools to ensure accuracy and integrity

Chief Systems Architect

Aug. 2022 – Nov. 2023

ABEX Cube-Sat Mission | Auburn, AL

- Engineered a sophisticated real-time **satellite infrastructure** to capture elusive gamma radiation signals from space, harnessing avant-garde technologies like Docker, C++, and F/F³ while maintaining a **100% uptime** and **error free** system, meeting both my personal standards and required satellite grade requirements.

Full-Stack Engineer

Jan. 2020 – Aug. 2022

CWS | Auburn, AL

- Conceptualized, designed, and brought to life an array of high-impact data driven applications across diverse technology stacks, combining front end features of .Net framework with backend databases on SQL, all in an Agile setting.
- Architected a state-of-the-art student elections logistics dashboard within a Web MVC framework, receiving a personal commendation from **Governor Ivey of Alabama**, showcasing real-time election analytics and insights for an extensive body of over 35,000 student voters.
- Revolutionized Auburn facility staff operations by devising a bespoke web application, seamlessly managing football ticket transactions exceeding a staggering **\$100,000 every season**, optimizing efficiency and user experience.

Elected Director of Housing Operations

Delta Chi at Auburn University

- As director of housing operations, I reduced chore assignment time for over 50 members weekly from 1 hour to 5 minutes by creating a weekly chore schedule generator. Created a household chore bounty system that increased participation from **64% to 92%**. Additionally reduced overall household supply costs by 20% by negotiating bulk recurring orders.

Eagle Scout

Mar. 2014 – Apr. 2018

Boy Scouts of America

Founder

May 2011 – Aug. 2019

Tech Kid Air & Tech Kid

- Contracted and produced real estate video showcases, many of which were showcased on Legacy New Homes website and were successful in marketing and selling homes and combined commissioned **\$2546.00**.
- Founded the company at 12 years old, consultant for tech setups as well as concierge service contracting **\$618.12**.

SKILLS

Data Science and Programming: Python, SQL, Pandas, Matplotlib, Scikit-Learn, XGBoost, Transformers (Roberta), Sentiment Analysis, Tokenization

Cloud and Databases: Google Cloud Run, MySQL, Firebase Firestore | **Development:** Github, Dart, C#, .NET Framework, HTML, CSS, Javascript, Agile Application Development

Soft Skills: Adaptability, Communication, Leadership, Team Player, Flexible | **Activities:** Onewheeling, Snowboarding, Music, Cooking, Overlanding, Off-roading, DIY projects