Morgan Sandler

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EDUCATION

Michigan State University   **East Lansing, MI || Jan 2022 - May 2023**
Master of Science: Computer Science, Specialization in Machine Learning and Language Technologies
GPA 4.00/4.00 || Awarded a fully funded Graduate Research Assistantship

Publications: *A Vocal Style Neural Network for Recognizing Speaker Emotion*, **Morgan Sandler** and Arun Ross, (Targeting ICASSP 2023 Deadline in October 2022)

Michigan State University   **East Lansing, MI || Aug 2018 - Dec 2021**
Bachelor of Science: Computer Science, Specialization in Astrophysics
Awarded the Christopher J. Jackson Endowed Scholarship of Computer Science

EXPERIENCE

Raytheon Technologies   **Waltham, MA (Remote from East Lansing, MI) || May 2022 - Aug 2022**
Data Scientist Intern
- Established a **185,000-node** graph based upon employee-management hierarchy in **Python, pandas, and NetworkX** to model the spatial relations of **employee behaviors** and **attitudes** for visualization of company-wide (post-merger) user adoption of Office 365 (O365) and engineering tools.
- Built an **employee-management subgraph generation tool** in **Python** to enable data scientists to analyze employee relationships as part of their user research saving **365+ annual hours** of prerequisite **data wrangling** work.
- Visualized user trends in **Pyvis and Seaborn** to present a story of technology adoption at Raytheon to raise project awareness and budget for O365 data exploration across different business units (Collins Aerospace and Raytheon Corporate).
- Analyzed employee **digital dexterity** through the employee-hierarchy graph + O365 data by **user behavior classification** with **Principal Component Analysis and K-Means**

Michigan State University   **East Lansing, MI || Jan 2021 - Present**
Graduate Research Assistant
- Designed and trained a **speech emotion recognition** model with **100+** hours of speech data to research the correlation between speaker vocal style and emotion labels with near *state-of-the-art* performance.
- Built a **human computer interaction (HCI)** demo in **Python** that predicts user affective state to play relevant music. https://github.com/morganlee123/SERPlaySpotify

Pratt & Whitney   **East Hartford, CT (Remote from East Lansing, MI) || May 2021 - Aug 2021**
Digital Technologies Intern
- Built a data reporting/editing system with business-facing visualizations in **SQL Server Reporting Services, ASP.NET, EF Core, and C#** to provide **70+** senior managers supply-chain information for strategic decisions.
- Increased product engineering time by **2%** annually by establishing a data pipeline in C# and SQL which automates the assignment of daily work.

LEADERSHIP/VOLUNTEER

SpartaHack Hackathon   **East Lansing, MI || Jan 2021 - Present**
Executive Co-Director
- Acquired **$54,000** of sponsorship funding from **8** companies for a **300-attendee** hackathon.
- **Directed a 4-person technology team** which launched a **React-based** website: spartahack.com
- Built a data pipeline to compile all attendee application information obtained from an internal API linked to Google Firebase for a report to Major League Hacking.
- Generated attendee demographic visualizations and statistics for the closing ceremony presentation, and delivered bundled resume packages for event sponsors.