

AIDAN SINGH

US Citizen | New York, NY | (518) 982-8994 | aas386@cornell.edu | [LinkedIn](#) | [Website](#) | [GitHub](#)

EDUCATION

Cornell Tech (Cornell University), New York, NY May 2024

Master of Engineering in Electrical and Computer Engineering

Select Coursework: ML Engineering, ML Hardware, Natural Language Processing, Digital Signal Processing, Virtual Reality

New York University, New York, NY May 2023

Bachelor of Music in Computer Science and Music Technology | GPA: 3.73/4.0

Select Coursework: Machine Learning, Linear Algebra, Data Structures, Algorithms, Data Management & Analysis, Operating Systems

TECHNICAL SKILLS

Coding Languages: Java SE, Python, SQL, C#, C, C++, x86 Assembly, Matlab, Cuda

Tools: PyTorch, SciKit-Learn, Pandas, Docker, AWS, GCP, Github, BigQuery, Apache Airflow

Certifications: Safe Zone Certified (Cornell Tech), Deep Learning for Music Information Retrieval (Stanford University)

EXPERIENCE

Software Development Engineer, Amazon Web Services, Bedrock (Java, Python), December 2024 – Current

- Reduced customer costs and wait time by improving validators for Bedrock's CreateEvaluationJob API
- Owning consolidation of internal metrics packages for LLM evaluation in RAG and programmatic inference
- Responsible for Foundation Model evaluation tooling maintenance and improvement as part of AWS Bedrock Evaluation

Tulip AI, Audio AI Scientist (Python), January 2024 – May 2024

- Conducted literature review and designed fine-tuning methodology for Meta's audio-craft models
- Authored Python and Shell scripts to scrape data from the library of congress (archive.org api)
- Designed coding and data collection tasks for undergrad interns, exercised asynchronous communication & technical reviews

Universal Music Group, Data Engineering Intern (Python, SQL, GCP, Apache Airflow, Dataflow, Git), June 2022 – August 2022

- Programmed a production incremental data pipeline (ETL) to ingest music streaming metrics from Meta
- Performed detailed analysis on Google Cloud Platform (GCP) Storage to identify potential optimizations saving \$100k/year
- Collaborated effectively with another intern and engineering team using data lake exceeding 10 Petabytes

NYU Music and Audio Research Lab (MARL), REU (Python, C/C++, Git), November 2021 – May 2022

- Contributed to [micarraylib](#), an open-source Python library for audio data aggregation in machine learning pipelines
- Translated audio algorithms from ambisonic encoder 'Array2SH' from C to Python with unit testing
- Participated in National Science Foundation REU Program, advised by Iran R. Roman under Juan P. Bello

Alan Silverman, Audio Engineer (Logic X), May 2021 – July 2021

- Used digital audio tools to modify recordings' pitch and timing for Grammy winning folk artist Judy Collins
- Edited audio files (piano stems) in 8 songs, splicing and compiling multiple files with creative discretion
- Collaborated with 80+ time Grammy nominated and winning audio engineer Alan Silverman

Old Mill Road Recording, Audio Engineering Intern, August 2020 – February 2021

- Operated analog and digital audio equipment with a focus on signal flow for recording and outboard-processing
- Prepared microphones for drums, piano, and guitar. Set rack equipment and recall sheets
- Assisted Grammy award winning audio engineer Ben Arrindell, credited on Emmy winner Lillias White's first studio album

PROJECTS

[Song Genre Classification](#) (Python, SKLearn) 2023

- Designed and trained an SKLearn AdaBoost machine learning model to classify song genre using features from Spotify's API
- Achieved an average AUROC score of .88 for classifying 10 musical genres
- Prepared data from 50,000 songs through feature extraction and handling missing and low-quality data

[Spatial Drawing Application](#) (C#, Unity) *Code available upon request* 2023

- Created a unity based spatial design application (.apk) for VR, developed on Meta Quest
- Implemented locomotion and object manipulation from scratch utilizing the Unity XR Interaction Toolkit and 3D math
- Spearheaded object placement (placing, scaling and orienting primitive objects) within a group project