# Sandeep Dasari

M.S. in Computer Science, Music Technology

**Passionately curious about all things tech.**


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## Skills

### Professional:

- Project ideation, design and rapid prototyping
- Agile development
- Scholarly research
- Polyglot tech enthusiast
- Team communication

### Technical:

- Progressive web development
- Machine Learning modelling
- Data Engineering
- Data analytics and visualization
- Audio programming
- UI/UX Design
- Back-End programming
- Database management

### Languages and Technologies:

- Python (NumPy, SciPy, SkLearn, PyTorch, Librosa, NLTK, spaCy)
- JavaScript (Node, Electron, WebAudio, PIXI.js)
- HTML/CSS, JSON
- SQL (Postgres, mySQL), MongoDB
- Max/MSP, JUCE
- C++

## Interests

- Music production, Interactive music
- Live coding music, Generative Art
- Hackathons
- Podcasting, Blogging
- Hiking, Soccer

## Summary


Engineer with a passion towards disruptive AI, audio and product development. My background in Computer Science gives me the tools to express myself as an creative programmer, engineer and multimedia artist.


## Experience

**Jan'21 – current** *Student Web Developer* / Georgia Tech Office of Information Technology

- JavaScript development, Drupal 7,8, UI/UX web design and implementation.
- JavaScript, Mapping APIs and micro-interactions, HTML/CSS, PHP

**May'20 – Aug'20** *Engineering Intern (R&D Audio)* | Qualcomm Inc.

- Developed an Electron JS app (Mac, Windows and Linux) for batch audio fingerprinting

**Aug'19 – Dec'20** *Graduate Researcher* / Georgia Tech Center for Music Technology

- Designed and implemented *evomusic* in JavaScript (Node): novel research tool applying Genetic Algorithms in live coding music. Uses dimensionality reduction, UI/UX, HCI user study and scholarly research
- Designed and implemented progressive web applications: *GrooveMachine(Chrome)* for EarSketch using JavaScript and Python.

**Jan'19 – Aug'19** *Machine Learning Engineer* / Bellwethr Inc.

- Develop data pipelines and reinforcement learning algorithms for real time inferences for customer retention on checkout pages, API design and development

**Apr'18 – Dec'18** *Student Web Developer* / K-State Global Campus

**Aug'16 – Apr'18** *Graduate Researcher* / Kansas State University

- Computer Science: Interstate crash prediction analysis using geospatial time series data: MongoDB, JS, Python
- Arts: Gesture recognition using Leap Motion and SVMs
- Architecture: Geospatial air pollutant visualization JS, SQL

## Education

**Aug' 2018 – Dec'2021 , Georgia Institute of Technology**

MS, Music Technology. GPA: 4.0

**Relevant coursework:**

- Music Information Retrieval, Interactive Music
- Audio Software Engineering, Digital Signal Processing
- **Primary author publication:** Directed Evolution in Live Coding Music, *Joint Conference on AI and Musical Creativity,*2020.

**Aug' 2016 – Dec' 2018, Kansas State University**

MS, Computer Science, GPA: 3.7

**Relevant coursework:**

- Artificial Intelligence, Machine Learning
- Database Management Systems (DBMS), Data Structures and Algorithms

## Projects

- **Music Information Retrieval:** Drum Samples Clustering, Audio feature extraction and clustering audio files using data visualization and dimensionality reduction (PCA).
- **Digital audio:** Websamplr Ableton Live device: Sample anything on the web
- **Computer Vision:** Gesture Recognition, Scene recognition, 2D to 3D reconstruction in images using PyTorch, NumPy, SciPy
- **Web Audio:** Progressive web applications using NodeJS, Web Audio API, Pixi.JS
- **NLP, Data Engineering:** Develop data pipelines to parse YouTube podcasts to generate data using Named Entity Recognition datasets