# Joey Zheng

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# **Education**

# Massachusetts Institute of Technology | Cambridge, MA

May 2024

Bachelors of Science in Computer Science & Engineering (6-3)

 Relevant Courses: Quantitative Natural Language Processing, TinyML & Efficient Deep Learning, Seminar in Undergraduate Research, Advances in Computer Vision, Applied Cryptography and Security, Software Studio, Design and Analysis of Algorithms, Theory of Computation, Probability and Random Variables

# Work

Gaia-AI | Boston, MA

June 2023 - Aug 2023

Software Developer Intern

- Developed an internal dashboard in Next.js to streamline data aggregation and align team objectives
- Designed and deployed diagnostics module on backpack for real-time anomaly detection, utilizing the rospy library, and automated data collection and uploading using AWS services

DAOHQ | Remote June 2022 - Aug 2022

Software Developer Intern

- Developed various components in Vue.js and npm package in React.js to improve SEO
- Presented lecture on "Mathematics behind Blockchain and Cryptography" for DAOHQ community

# **Projects**

# Musical Genre Classifier | Cambridge, MA

Apr 2023 - May 2023

Data Scientist in Advances in Computer Vision

- Leveraged computer vision techniques to develop model for classifying musical audio into genres
- Utilized deep learning libraries such as Keras and Librosa for audio processing

# MIT OIDC Client | Cambridge, MA

Apr 2023 - May 2023

Researcher in Applied Cryptography and Security

- Designed a client aimed at simplifying integration of MIT Touchstone authentication into MIT web services.
- Explored innovative methods for cryptographically binding ID Tokens to public signing keys as team of 3

#### Adorify | Cambridge, MA

Nov 2022 - Dec 2022

Software Developer in Software Studio

- Developed pomodoro timer integrated with Spotify API to streamline and enhance study habits as team of 3
- Implemented user interface using Vue.js and optimized state using Vuex store management

#### Harmonious | Cambridge, MA

Nov 2022 - Dec 2022

Software Developer in Interactive Music Systems

- Built dynamic two-player karaoke app in Python using Kivy framework in team of 3
- Constructed and maintained audio data, designed UI/UX in reference with popular karaoke softwares

#### Paranoia | Cambridge, MA

**Jan 2022** 

Team Lead in WebLab

- Awarded 5th Place (Honorable Mention) \$1000 and Gather Innovation Prize \$750
- Developed web application for playing Paranoia virtually with MERN stack in team of 2

# Leadership

#### MIT LIVE | Cambridge, MA

Nov 2022 - Present

Founder, President

- Founded student group for MIT member who wishes for a platform for live music performances
- Manages 40+ active members and organizes all aspects of rehearsals and performances

# MIT Global Teaching Lab Israel | Ben Shemen Youth Village, Israel

Jan 2023

Instructor

- Initiated very first computer science class at Ben Shemen Youth Village
- Lead 3-week curriculum for disadvantaged high schoolers in Python programming
- Designed lesson plans, coding exercises, test files, and Pygame final projects for students

# Skills and Interests

Python, PyTorch, Pygame, Javascript, Vue, Vuex, HTML, CSS, MERN Full Stack, Socket.IO, React Native, Bilingual Communicator (English, Mandarin)