

# Linlin Zhang

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## Education

### Columbia University

*M.S. in Computer Science*

Aug. 2024 – Dec. 2025

*New York, NY*

- Track: Vision, Graphics, Interaction, and Robotics (VGIR)

### University of Wisconsin-Madison

*B.S. in Computer Science and Data Science*

Sept. 2021 – June 2024

*Madison, WI*

- GPA: 3.9/4.0, Honors Program, Dean's List (all semesters), Minor in Art

## Technical Skills

**Languages:** Java, Python, C++, C, C#, JavaScript, TypeScript, Swift, R, SQL, HTML/CSS, Bash, PHP, Ruby, Go

**Frameworks:** TensorFlow, PyTorch, Django, .NET, Spring, Rails, Flask, Node.js, React, Angular, JQuery, MongoDB

**Other/Tools:** Xcode, Android Studio, IntelliJ IDEA, VS Code, Git, JIRA, Jenkins, Docker, Firebase, GCP, AWS, Matlab, Colab, Rhino, Linux, Ubuntu, OpenCV, Shell, SaaS, Cloud Computing, Redux, NLP

**Design:** Unity, Blender, Figma, AE, AI, PR, PS

## Professional Experience

### Activision Blizzard

*AI localization Intern*

May 2025 – Aug. 2025

*Irvine, CA*

- Develop and refine AI and machine learning models to support localization workflows
- Collaborate with cross-functional teams to integrate AI solutions into translation pipelines
- Analyze localization data and model outputs to identify improvement opportunities
- Build dashboards and tools to monitor AI model performance and translation quality
- Work with cloud-based services and automation tools (e.g., Azure AI, containerization)

### Alphabet Inc.

*Software Development Intern*

June 2023 – Sept. 2023

*Mountain View, CA*

- Developed a scalable YTM Music Library Management System using Koa, Axios, Koa-jwt, and MongoDB, improving platform stability by 20% and user satisfaction by 30%.
- Enhanced system performance with GCP deployment and load balancing across multiple servers.
- Built a custom metadata parser leveraging music-metadata and Node.js to extract song titles, artist information, and album art with 95% accuracy from over 10,000 tracks.
- Developed a RESTful API for seamless integration with third-party applications, reducing 40% integration time.
- Utilized TensorFlow to launch a deep learning model that increased audio metadata classification efficiency by 30%, minimizing processing time for large datasets >10GB.

### CTI One Corporation

*CV and Software Engineer Intern*

Sept. 2023 – Mar. 2024

*Santa Clara, CA*

- Led the development of AI-driven healthcare solutions for the W100 robotics healthcare project, achieving a 25% increase in product efficiency by applying OpenCV, Python, and PyTorch.
- Established strict version control protocols on GitHub, achieving a 30% reduction in merge conflicts. Performed efficient system architecture using C++, Python, leading a 10-person team in cross-departmental projects.
- Implemented a machine learning-based diagnostic system utilizing AWS cloud services for real-time image analysis, elevating diagnostic accuracy by 15%.
- Developed 10+ webpages based on React, A/B test to attract and handle 1,000+ daily active users. Optimized data pipeline using Django, PostgreSQL to process 2GB daily, implementing Redis caching to reduce latency by 20%.

## **Audiomack Inc.**

*Data Analyst Intern*

Mar. 2025 – May 2025

*New York, NY*

- Develop, maintain, and enhance comprehensive, predictive artist and song data tools. Audit and optimize internal databases and refine SQL queries for improved efficiency.
- Support the Director and Manager of Licensing & Music Partnerships with departmental initiatives. Collaborate with internal teams to execute GTM strategies for new business verticals.
- Assist in signing and release administration for Audiomack's Distribution operations. Work closely with the A&R team to refine internal A&R data tools and analyze key insights.

## **Research Experience**

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### **Creative Machine Lab**

*Researcher*

Jan. 2025 – Present

*New York, NY*

- Investigating video-based recovery of soft-body simulation parameters via video colorization using ViT-based transformers.
- Simulated dynamics with Taichi-Lang, modeling mass-spring systems (avg. 4-node mass, 6-spring stiffness/damping).
- Conducting dataset generation and training for 2D/3D MPM simulations.

### **Modern Data Visualization of Big Data**

*Team Leader*

Mar. 2023 – May 2023

*Madison, WI*

- Created a machine learning project using Python, R, TensorFlow on 6,468 air pollution mortality records (27 yrs) from Kaggle, advancing model accuracy through advanced preprocessing techniques.
- Conducted comparative analysis using Linear Regression, KNN, SVM, and Polynomial Regression, utilizing Scikit-learn for implementation and Matlab for visualization, augmenting accuracy by 15%.
- Optimized data handling with SQL, Pandas, decreasing processing time by 20%, refining scalability.

### **Wisconsin Autonomous Team**

*Team Leader*

Sept. 2022 – Dec. 2022

*Madison, WI*

- Processed 2D object detection system with Python, C++, YOLOv7, and Point Cloud Library (PCL), boosting perception accuracy by 30%.
- Accelerated object recognition with CUDA, lidar, and OpenCV, cutting 25% detection latency.
- Optimized model training with GCP, TensorFlow, and Docker, cutting deployment time by 20%.
- Managed orchestration with Kubernetes and scaled cloud processing using Azure, ensuring high availability.

### **Applied Computer Vision**

*Research Leader*

Dec. 2021 – Feb. 2022

*Madison, WI*

- Directed larger dataset preprocessing using OpenCV, Pandas, and Python, optimizing model consistency and accuracy by 20% through data augmentation and normalization.
- Executed experiments and deployment with Colab and AWS. Fine-tuned deep learning models with transfer learning, hyperparameter tuning, and dropout techniques, solving business challenges with 25% faster inference.
- Deployed a real-time image classification app employing TensorFlow Lite, strengthening on-device performance for mobile applications.

## **Projects**

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- **XR interaction with LLMs** Jan. 2025 – Aug. 2025
  - \* <https://github.com/linlinzhanglucky/3D-UI-ARtificate>
  - \* Writing LLM voice command pipeline in to do Selection, Manipulation, Filtering, Wayfinding in Unity. (VR, AR, C#)
- **PolXR** — <https://github.com/linlinzhanglucky/PolXR> Oct. 2024 – Dec. 2024
  - \* XR Tool for Ice-Penetrating Radar Visualization (Unity, C#, Photon Fusion2)
- **3D VR-AR ArtGallery** June 2023 – Aug. 2023
  - \* <https://github.com/linlinzhanglucky/ILS204-VR-ARTMUSEUM>
  - \* Virtual Art Gallery where user could go around with keyboard and interacted with the artwork. Self-built 3D structure included.(Unity, Blender, C#, ARCore, Oculus SDK)
- **SuikeJi Note-Taking App** Sept. 2019 – Jan. 2021
  - \* Creating Note-taking app with website sharing note platform.CV model for image to text. (OpenCV, Android Studio, Firebase for real-time sync)