

Kian Zohoury

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EDUCATION

University of California, Berkeley
B.A., Computer Science

May 2022
Berkeley, CA

- Major GPA: 3.51/4.0; Regents' and Chancellor's Scholarship
- *Relevant Coursework:* Data Structures, Deep Neural Networks, Discrete Math & Probability, Efficient Algorithms, Intro to AI, Intro to ML, Linear Algebra & Differential Equations, Machine Structures, Multivariate Calculus, Natural Language Processing, Principles & Techniques of Data Science

SKILLS

- *Languages:* Python, Java, C/C++, SQL, JavaScript, HTML/CSS, LaTeX
- *Libraries/Frameworks:* PyTorch, NumPy, Scikit-Learn, OpenCV, Pandas, Scipy, Matplotlib, Django, JQuery, React
- *Technologies:* GCP, AWS
- *Other:* Git, testing, debugging, API/documentation, visualizations

PROJECTS

Music Source Separation | PyTorch, Torchaudio, NumPy, Poetry, Sphinx

- Built & documented a package for training CNN-based variational autoencoders that isolated *stems* (e.g. vocals) from songs.
- Made optimizations that enabled faster model training & evaluation, and synthesized high quality source signals with less noise & artifacts.

Artistic Style Transfer | PyTorch, Torchvision, MTCNN, OpenFace

- Implemented an efficient style transfer model that transformed images using an artistic style.
- Improved results on portraits by preserving facial features, image color and pixel smoothness.

Face ID | PyTorch, Torchvision, MTCNN, PyNNDescent

- Engineered a small, dual-task facial verification & recognition pipeline inspired by FaceNet.
- Optimized facial verification using positive & negative matches, and carried out facial recognition via approximate nearest neighbor search.

Recycling Assistant | PyTorch, Torchvision, React Native, Django

- Prototyped a web app with four classmates that utilized image classification to better identify recyclable goods.
- Harnessed React Native to implement a compelling UI, and Django to deploy a pretrained model that was optimized for recycling classification (~90% accuracy) via transfer learning.

EXPERIENCE

Freelance

Mix Engineering

July 2016 – Dec. 2018

Los Angeles, CA

- Applied technical methods in mixing and mastering, learned through a year-long accredited music program in Los Angeles (Icon Collective), to assist vocal artists and music producers in releasing industry quality music with reputable independent record labels.