

# Antonis Christou

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## EDUCATION

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**Yale University**, New Haven, CT; Class of 2024

- Bachelor of Arts in Computing and the Arts; Current GPA 3.97/4.0

**International Korean Language Program**, Yonsei University, South Korea, 2022-2023

- Year long program fully funded by Richard U. Light Fellowship

## EXPERIENCE

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**Software Engineering Intern @ Meta**, May 2022-August 2022

- Worked on Origami Studio, a prototyping tool, and built features that are used in production by users such as WhatsApp and Spotify
- Attended meetings, participated in code reviews and generally helped shape the direction of Origami Studio

**Data Structures TA**, Yale University School of Engineering and Applied Science, August 2021-December 2021

- Lead office hours for over one hundred students multiple times a week to help debug projects and explain concepts
- Assist course staff with grading midterms, finals, and other examinations as well as other grading duties

## RESEARCH & PROJECTS

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**Automatic Creation of Melodic and Chordal Chromaticism**, May 2023-August 2023

- Collaborated with Professor Roger B. Dannenberg of Carnegie Mellon University on research project involving the creation of a machine learning script for adding chromaticism to purely diatonic input songs
- Parsed, cleaned, and prepared hundreds of jazz harmonizations of American folk songs for use as input to machine learning model
- Independently ran experiments with various neural architectures to find model best suited for task of making chromatic alterations
- Wrote paper detailing findings

**Machine Learning Harmonizer Plugin**

- Created machine learning model to harmonize melodies after gathering corpus of thousands of songs across genres such as jazz, pop, and folk as part of Senior Thesis project
- Created Max For Live plugin for Ableton Live that enables real-time harmonization of signal with inputs from midi keyboard
- Leveraged knowledge of MaxMSP, PyTorch, JavaScript, and general music production to combine machine learning model into Max For Live, enabling machine harmonizations of user-created melodies

## SKILLS AND INTERESTS

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- **Programing Languages:** SuperCollider, MaxMSP, C, Python, PyTorch, Swift, UNIX, Bash, C#
- **Music Instruments & Software:** Bass (electric/upright), 11 years of experience with numerous professional and national-level ensembles, have given performances at Carnegie Hall and other top halls in the United States, Logic, Ableton, Digital Synthesizers, Sibelius, Electric Guitar
- **Foreign Languages:** English (fluent); Modern Greek (working fluency, C1 level of proficiency); Korean (advanced, TOPIK Level 5 proficiency)

## ACTIVITIES AND LEADERSHIP

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**Yale Symphony Orchestra**, Principal Double Bass, 2019-

- lead and coordinate bass section and communicate with conductor in performance of advanced symphonic works

**Heifetz International Music Institute**, Bassist, Summer 2020

- performed with long running music festival as part of one of first ever classes of double bassists accepted to the institute

**National Youth Orchestra 2**, Summer 2017

**Yale Daily News**, Composer

**Cortex Magazine**, Composer