Marc Andrew Choi

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EDUCATION

University of California, Los Angeles (UCLA)

Los Angeles, CA

Bachelor of Science in Mathematics with Specialization in Computing

Expected March 2023

- GPA: 3.82/4.0
- Dean's List and College Honors

Research Experience

Gang Reduction

Jun 2022 - Aug 2022

UCLA CAM REU under Dr. Andrea Bertozzi, Dr. Yifei Lou, and Dr. Jeffrey Brantingham

Los Angeles, CA

• Implemented Dynamic Mode Decomposition to approximate dynamics a system representing the likelihood of joining a gang

Model of Prion Diseases Math 199 under Dr. Michael Lindstrom Apr 2022 – Jun 2022 Los Angeles, CA

• Created a robust model that predicts the dynamics of prion proliferation in human brains

A Novel Model of Fluidity within Homeless Populations

Oct 2021 – Dec 2021

Math 199 under Dr. Michael Lindstrom

Los Angeles, CA

• Created a robust model that predicts the exit and entry rates of the homeless population using multithreading

Independent Study

Graph Theory | Directed Reading Program

Apr 2022 – Jun 2022

• Worked through sections of Proofs from THE BOOK by Martin Aigner and Gunter M. Ziegler

Category Theory | Dr. Jonathan Rubin

Jun 2021 – Aug 2021

• Worked through chapters 1-2 of Category Theory in Context by Emily Riehl

Spectral Theory | Directed Reading Program

Jan 2021 - Mar 2021

• Worked through sections 1-5 of Spectral Methods in Matlab by Lloyd N. Trefethen

Campus Involvements

Delta Sigma Pi Business Fraternity

Jan 2020 – Present

Chancellor

Los Angeles, CA

- Host recruitment events each quarter and presided over new membership deliberation process
- Create study-buddy system within the Fraternity to ensure members have at least 1 friend in each class
- Coordinate Diversity Recruitment Initiative to increase the acceptance of underrepresented applicants by over 200%

Undergraduate Mathematics Student Association

Sept 2020 – Present

Los Angeles, CA

Mentor

- Mentor 9 undergraduate mathematics students academically and professionally
- Facilitate various open studying sessions where mentees received help on various homework assignments
- Spearhead social events to strengthen relationships within the undergraduate mathematics community

Miscellaneous

Math Course Grader

March 2021 - Present

Los Angeles, CA

University of California, Los Angeles

- Fall 2022: Math 33A: Linear Algebra and Applications
- Summer 2022: MATH 33B: Differential Equations & Math 115A: Linear Algebra
- Spring 2022: Math 115A: Linear Algebra & PIC 40A: Introduction to Programming for Internet
- Winter 2022: Math 61: Introduction to Discrete Structures
- Fall 2021: PIC 16A: Python with Applications I & PIC 40A: Introduction to Programming for Internet
- Summer 2021: Math 61: Introduction to Discrete Structures & Math 115A: Linear Algebra

Instruct high school and college students in mathematics for approximately 15-20 hours a week

• Spring 2021: PIC 40A: Introduction to Programming for Internet

Independent Tutor

Sept 2016 - Present

Various Locations

Various Locations

Technical Skills & Interests

Languages: C++, MATLAB, Python, R, Julia, Javascript, PHP, LATEX

Interests: San Antonio Spurs, Settlers of Catan, Piano, Rick and Morty, Mahjong, Cooking, Traditional Chinese Medicine