Mason Wang

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Education

Saratoga High School   *Saratoga, CA*
CONCURRENTLY ENROLLED AT WEST VALLEY COLLEGE AND FOOTHILL COLLEGE   *Aug. 2019 - June 2023*

- GPA: 3.98 (10-12: **4.58**)
- **ASB President**, ASB Secretary, Sophomore Class Treasurer, Freshman Class President
- Varsity Basketball **Team Captain** (varsity since Freshman year)
- CS Club President, AI Club President, App Dev Club President
- Culture of Consent Task Force (Sexual Assault Awareness) Organizer
- Freshman SAT Score: 1530
- AP Credits: Calculus BC (5), Computer Science (5), Macroeconomics (5), Microeconomics (5), Statistics (5), Chemistry (5), US History (5), English Composition and Literature, US Government, Drawing
  - **Awarded AP Scholar with Distinction**
- Relevant concurrently enrolled coursework (GPA: **4.00**): Computer Architecture and Organization, Network Basics, Intro to Database Management Systems, Firewalls and Threat Management, Cybersecurity Fundamentals, Intro to Cloud Computing (AWS), Database Essentials (AWS), Compute Engines (AWS), Intro to Research in Tech (UCSB)

Skills: Python, Java, C++, C, Pytorch, Numpy, Tensorflow/Keras, React, Git, Javascript, Typescript, HTML, CSS, Swift, SQL, Matplotlib, Tailwind CSS, Pandas, Node.js, Express, AWS, Microsoft Azure, Shell scripting (Linux)

Experience

Stanford Open Virtual Assistant Lab (OVAL)   *Stanford, CA*
STUDENT RESEARCHER   *June 2022 - Present*

- Advised by Professors Monica Lam (CS), Edward Chang (CS), and Lynn Koegel (Psychiatry)
- Building a conversational AI to improve the social skills of individuals with Autism Spectrum Disorder
- First high school student to present in front of the Stanford NLP Group
- Stanford CS 224V students currently build on top of my framework, Noora (*noora.stanford.edu*)
- Research topics: chatbots, grounded dialogue agents, NLG, NLP

UC Santa Barbara Four Eyes Lab   *Santa Barbara, CA*
STUDENT RESEARCHER   *Aug. 2021 - June 2022*

- Advised by Professors Tobias Höllerer (CS) and Pradeep Sen (EECS)
- Continued research after summer session at UCSB's Research Mentorship Program (3.75% acceptance rate)
- Research topics: multimodal machine learning and learning with noisy labels

Research

Sparse Fusion for Multimodal Transformers   *Under Review at WACV 2023*
YI DING*, ALEX RICH*, **MASON WANG**, NOAH STIER, MATTHEW TURK, PRADEEP SEN, TOBIAS HÖLLERER   *Nov. 2021*

- Presents a novel multimodal fusion method (Sparse Fusion Transformer; SFT) for transformers
- Performs comparably to existing state-of-the-art methods with significant reduction in computation and memory requirements

Interpolating Latent Representations to Increase Label Noise Tolerance   *UC Santa Barbara RMP 2021*
MASON WANG, YI DING   *Jul. 2021*

- Proposes a modality-agnostic label noise tolerant technique based on the *mixup* data augmentation technique
- Reduces the memorization of corrupt labels, which can alleviate the issue of noisy labels

CLEFNET: Recurrent Autoencoders with Dynamic Time Warping for Near-Lossless Music Compression and Minimal-Latency Transmission   *Preprint*
VIGNAV RAMESH, **MASON WANG***   *March 2021*

- Proposes an architecture (Latent Space) for a platform with near-lossless audio transmission for virtual music collaboration

Honors & Awards

2020   **1st Place at LAHacks (UCLA)**, created a PWA targeting the field of smart infrastructure. *1,100+ competitors*.

2020   **3rd Place at HackMIT**, created an ML-powered virtual music collaboration platform. *1,100+ competitors*.

2020   **3rd Place at COVIDathon**, built a decentralized PWA to strengthen communities. *1,300+ competitors*.