Kevin Ma

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EDUCATION

Columbia University, School of Engineering and Applied Sciences: New York, NY **September 2022 – May 2025**
Bachelor of Science: Computer Science Major| Applied Mathematics Minor
GPA: 3.9 | **Honors:** Egleston Scholar (4% Acceptance Rate Amongst Class)
Relevant Coursework: Advanced Programming, Machine Learning, Databases, Security, Artificial Intelligence, Probability

WORK EXPERIENCE

Amazon: Seattle, Washington: 2023; Dallas, Texas: 2024 **June 2023 – September 2024**
Data Engineering /SWE Intern

- Created a full pipeline to help migrate data ETL profiles and jobs for over 50 teams, used org wide within Amazon Fresh Data teams, facilitated migrations that eliminated >5000 hours manual work
- Used AWS CDK/Lambda Service to build an automatic table completeness validation service for customer data tables.
- Wrote numerous ETL job profiles and SQL queries to assist in analyzing financial team data.

Toyon Research Corporation: Santa Barbara, California **May 2021 – Aug 2022**
Machine Learning Intern

- Developed two machine learning models on Real Satellite Image Data with high precision for natural disaster classification, and utilized Computer Vision Techniques to facilitate 3d Landscape construction from 2d satellite images.
- Developed a full data parsing pipeline for generating annotation files for Binary Masks and PolygonXML annotations.
- Handled data processing and generating scripts and algorithms in MATLAB and Python.

Bubble Social: New York, New York **September 2022 - Present**
Full Stack Developer

- Built social media app startup aiming to target the hyper-locality niche to help users build localized social networks, allowing users an easy method of contact to meet new people that are currently nearby to them.
- Developed end-to-end features using Swift, Go, Terraform, and AWS services Dynamo and Redshift to build a system for liking profiles, the user relation network through contact data, and all in-app notifications.
- Launched product "wya" on App Store in May 2023, continuing to implement new features.

PROJECTS

Columbia Data Science Hackathon | Winner **March 2023**
1st Place

- Data Science Hackathon contested between ~110 undergraduate and graduate students in Columbia.
- Analyzed real player data with data science techniques to develop a predictive model for true mathematical game odds.
- https://devpost.com/software/genshin-s-wish-pity-system-data-science-hackathon-game

PUBLICATIONS

Ma, K., "Artificial Intelligence Aided Training in Ping Pong Sport Education" (2020), Transdisciplinary AI 2020 (TransAI 2020), pp. 43-49, https://doi.org/10.1109/TransAI49837.2020.00012

- Engineered during COVID to help combat the problem of Social-Distancing requirements and the expensive nature of private coaching to produce an Artificially intelligent "Table Tennis Coach".
- Mechanically designed, coded, collected data, and tested racket sensor.
- Recorded live swing data during play, and made working prototype that could provide live AI swing feedback on strokes or swings using Machine learning model architectures.

Ma, K, (2021), "A Real Time Artificial Intelligent System for Tennis Swing Classification" (2021), World Symposium on Applied machine Intelligence and Informatics, pp. 21-26, https://doi.org/10.1109/SAMI50585.2021.9378695

- Expansion of previous table tennis prototype to scale to traditional tennis.
- Improved machine learning models and introduced Physics based Recurrent Neural Networks.

TECHNICAL SKILLS

Languages: Python, MATLAB, C, C++, Java, SQL, Go, Swift, Solidworks
Services/Concepts: AWS Dynamo, AWS Redshift, Machine learning modelling, Computer Vision, Data Pipelines/ETL Processes, Data Science (Seaborn, Matplot, Numpy), Mobile App Development, IoT, Embedded Systems, Microcontrollers.