SICHENG MAO

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EDUCATION

Carnegie Mellon University (CMU)   Pittsburgh, PA, USA
M.S. in Computational Design and Manufacturing; GPA: **4.0**/4.0   Aug. 2020 – Present
Coursework: *Computer Systems, Cloud Computing, Deep Learning, Principles of Software Construction*

Shanghai Jiao Tong University (SJTU)   Shanghai, China
B.E. in Mechanical Engineering; GPA: **86**/100   Sept. 2016 – Jun. 2020
Coursework: *C++, Python, Data Structure, Operating System, Computer Networks, MCU System*

University of Tokyo (UTokyo)   Tokyo, Japan
USTEP Exchange Student; GPA: **4.0**/4.0; Coursework: *Robotics*   Apr. 2019 – Aug. 2019

PROFESSIONAL EXPERIENCE

Apple   Shanghai, China
Software Engineer Intern - AI/ML Siri Understanding   Jun. 2021 – Aug. 2021
- Designed and developed **iOS Siri Widget** to make **personalized** Siri usage recommendations to users
- **Extracted features** on SiriRemember (on-device) and UsageLog (on-server) data in 4 designed scenarios
- Trained and deployed models (XGBoost) to predict Intents and mapped to displayed utterances

Amazon Web Service (AWS)   Shanghai, China
Solution Architect Intern   Mar. 2021 – Jun. 2021
- Developed **GCR PoC Library** internal service to enable PoC review and best practice nomination
- Designed the **cloud architecture** and **Aurora** database (6 tables); designed 13 front-end **GraphQL** APIs
- Implemented backend **Lambda** functions; enabled **SES** notifications; deployed by **CDK** and **AppSync**

SJTU Institute for Medical Imaging Technology   Shanghai, China
Research Assistant   Sept. 2020 – Jan. 2021
- Applied **meta-learning (PyTorch)** to CT pancreas segmentation; pre-trained on MRI; improved 2% DSC
- Expanded dataset using **GAN**; proposed inter-slice loss function and center justification method

Meituan   Shanghai, China
Quality Assurance Intern   Apr. 2020 – Jul. 2020
- Wrote **automation test cases** for Dianping's service; launched and maintained Old-Pulling-New service

ACADEMIC PROJECTS

High Performance Twitter Big Data Analytics Web Service   Feb. 2021 – May 2021
- Calculated relation scores (**ETL**) on Twitter dataset (**>1TB**) with **Spark Scala** into **MySQL** and **HBase**
- Built **Vertx** web-tier; deployed with **Kubernetes**, **Terraform**, load balancer to AWS **EC2** and **RDS**
- Achieved 20,000/6,000 RPS in user recommendation and hot word ranking web service (class **top 5**)

Stream Processing with Kafka and Samza for Driver-Rider Matching   May. 2021
- Implemented a real-time streaming driver-rider matching service (like Uber) using **Kafka** and **Samza**

NYC Taxi Fare Prediction Application   Apr. 2021
- Deployed an end-to-end solution that predicted taxi fare from input destination images or speech queries
- Trained a model predictor utilizing constructed features (feature engineering) on Google AI Platform

PROFESSIONAL SKILLS & HONORS

Programming Languages: C/C++, Java, Python, SQL, JavaScript/TypeScript, Swift
Languages: English (TOEFL 110), Japanese (N1 134), Chinese (Native)
Tools: Git, Linux, MySQL, HBase, Docker, Kubernetes, Spark, Maven, HTML, CSS
Honors: JASSO Scholarship, Academic Excellence Scholarship*3, Excellent Capstone Design

LEADERSHIP & ACTIVITIES

SJTU Global Ambassador; Volunteer, Tokyo Minato Bosai Festa, Shanghai International Marathon
LMU Munich Summer Program; Shanghai-Taiwan Community & Enterprise Camp