Victoria Tsai

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Experience

Meta — JUN 2021 – Menlo Park, CA
Software Engineer
ZippyDB distributed key-value store.

Stanford — MAR – JUN 2021 — Stanford, CA
Research Assistant
Multilingual semantic parsing in the Stanford Open Virtual Assistant Lab (OVAL) directed by Professor Monica Lam.

Facebook — SEP – DEC 2020 — Menlo Park, CA
Software Engineer Intern
Connected machine learning platforms and models to the company-wide spam and abuse classification engine Sigma. (*Haskell, C++*)

Google — JUN – SEP 2020 — Sunnyvale, CA
Software Engineer Intern
Jarvis team in Google Core. Built an RPC service on an existing server plus client-side logic for a command-line tool to help Knowledge Graph developers run experiments. (*C++*)

ThoughtSpot — JUN – SEP 2019 — Sunnyvale, CA
Software Engineer Intern
Designed and implemented a distributed filesystem layer with directory structure over Google Cloud Storage, including independent coarse-grained locking and parallel upload and download. (*C++*)

YugaByte — JUN – SEP 2018 — Sunnyvale, CA
Software Engineer Intern
Implemented Redis features in the query layer of the YugaByte distributed database. Added TTL by extending document design and modifying compaction algorithm for RocksDB. Built Redis lists with deque functionality. (*C++*)

NASA GSFC — JUN – AUG 2017, 2016 — Greenbelt, MD
Research Intern
Data analysis to study properties of laminar cirrus clouds with Dr. Jie Gong and Dr. Dong Wu. *Presented at AMS 98th Annual Meeting.* (*Python, Java*)

Projects

CS 140 — WIN 2021
Pintos
Designed and wrote a kernel thread library, user syscalls, virtual memory, and filesystem for the 32-bit single-core Pintos toy operating system.

CS 236 — AUT 2018
CycleFlow
Designed and trained FlowGAN-like architectures to learn unsupervised domain to domain image translation. Original work built on FlowGAN in Tensorflow. CycleGAN in PyTorch.

CS 229 — AUT 2017
Reinforcement Learning To Run
Trained a DDPG model in Tensorflow for bipedal running in OpenAI Gym. Compared results with deep Q-networks.

CS 238 — AUT 2017
Simulated Annealing
Bayesian structure learning on a provided dataset in a large state space using simulated annealing. (C++)

Education

Stanford University (2019 – 2021)
M.S. Computer Science
Concentration: *Artificial Intelligence*

Stanford University (2016 – 2020)
B.S. Mathematics, *Russian Language Minor*
Dobro Slovo National Slavic Honor Society
Mathematics Grader: Groups and Rings
Language Tutor (LCP): Chinese

Higher School of Economics (2019)
Math in Moscow Study Abroad Program
Commutative and Homological Algebra

Montgomery Blair HS (2012 – 2016)
Math, Science, and CS Magnet Program
USA Computing Olympiad Gold Division

Skills

Programming Languages

Natural Languages

English, **Chinese** (Mandarin), **Taiwanese**, Russian (Intermediate), Spanish (Intermediate)

Coursework

140 Operating Systems
242 Programming Languages
224N Natural Language Processing
231N Convolutional Neural Networks
234 Reinforcement Learning
261 Optimization & Algorithmic Paradigms
143 Compilers
245 Principles of Data Intensive Systems
254 Computational Complexity
334A Convex Optimization
236 Deep Generative Models
228 Probabilistic Graphical Algorithms
229 Machine Learning
238 Decision Making Under Uncertainty
265 Randomized Algorithms
110 Principles of Computer Systems
161 Design and Analysis of Algorithms
154 Introduction to Theory of Computation