

Mingchun Zhuang

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EDUCATION

- **University of Michigan** Ann Arbor, MI
B.Sc. in Computer Science (Transferred from BUPT) *Sept 2022 – May 2024 (Expected)*
- **Beijing University of Posts and Telecommunications** Beijing, China
B.Eng. in Internet of Things; GPA: 92.57/100; Rank: 1/180; China National Scholarship (Top 0.2%) *2020 – 2022*

SKILLS

- **Languages:** C/C++, Python 3/2, Java, JavaScript, Rust, SQL, HTML, CSS, R, WXML, Dart, Pascal
- **Tools:** Linux, MP-SPDZ, Selenium, PyTorch, Scikit-Learn, MATLAB, Git, Tableau, Docker, FaaS, VueJS, NodeJS

EXPERIENCE

- **GangXing Investment** Beijing, China
Low Latency System Engineer Intern *Jul 2022 - Aug 2022*
 - **WebSocket Trader Optimization:** Designed, experimented and analyzed multiple connection management schemes by Python for arbitrage strategies between servers of OKEX in HK and Binance in Japan; implemented by C++ with RapidJSON and Libwebsockets, achieved 92% win rate compared to production
- **Huakong Tsingjiao Information Science** Beijing, China
Algorithm Intern (Advised by Xiaoyu Fan, Wei Xu @ IIIS, Tsinghua University) *Mar 2022 - Jul 2022*
 - **Algorithm Optimization of Secure Multi-Party Computation:** Applied various approximation strategies to balance accuracy and performance in MPC; our paper in ACM CCS 2022 (Top 4 Conference in Computer Security): NFGen: Automatic Non-linear Function Evaluation Code Generator for General-purpose MPC Platforms
- **Singularity Data** Beijing, China
Software Engineer Intern *Jan 2022 - Mar 2022*
 - **Streaming Database RisingWave (★ 3.2k) Maintainer:** Worked on database frontend on Rust and Java: SQL parser, binder, optimizer, and planner; Refactored drop table in catalog service; Added drop table in handler; Bound multiple functions with type inference support; Added logical filter in binder, optimizer, and planner
- **Apple - Multi Store Channel, Greater China Sales** Beijing, China
Data Analyst Intern *July 2021 - Jan 2022*
 - **Multi-channel Allocation System:** Built with Dynamic Programming and Simulated Annealing using Python from scratch, allocating Sell-in worth over 150 million USD for 48% of authorized stores in China every week
 - **Real-time Data Validation Service:** Developed by C++ for an annual investigation project of Point of Sales (POS) in China based on millions of POS data in history, returning the credibility of incremental data in real time
 - **Barcode Records Exception Detector:** Built by Python with given rules, trained-Classifiers, and features from Data Mining in 1.2B records, detecting exceptions in records generated daily from all authorized stores in China
- **Nowcoder** Remote
Algorithm Contest Writer *2018 - 2020*
 - **Held Many Original Contests:** Nowcoder Challenge 42, Nowcoder Week Contest 9, ..., received 5k submissions

PROJECTS

- **Wait You Back:** A serverless platform to help search missing senior citizens using JavaScript, HTML, Dart, CSS, and APIs like Face API, which includes scan-to-use Vue-Like WeChat mini-program client and iOS/Android Flutter client
- **Machine Learning Plus in Computer Vision:** Reproduced 3D reconstruction model from ICCV2015 by PyTorch
- **International Collegiate Programming Contest (ICPC):** Lead a team of 3 members with 15+ hours co-training weekly, awarded Silver Medal in ICPC Asia Jinan Regional (Due to my quarantine only 2 teammates participated)
- **eWordle:** A lightweight extended version of Wordle with full-featured helper using Java Swing
- **Personal Blog (in Chinese):** Posted 300+ articles about advanced algorithms and received more than 400k hits

HONORS

- **Champion (First Place)** in Collegiate Computer System & Programming Contest (CCSP) Northern China Division
- Personal **First Prize** in China Collegiate Computing Contest-Group Programming Ladder Tournament National Final
- **First Prize** in China National Olympiad in Informatics in Provinces (NOIP) (2015, 2017, 2018) (**3 Times**)