

Zibai (Matthew) Wang

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EDUCATION

Cornell University, Ithaca, New York	Jan 2024 - Dec 2024
Master of Engineering: Computer Science	
University of British Columbia, Vancouver, BC	Sep 2019 - May 2023
Bachelor of Science: Computer Science and Mathematics; Graduated with Distinction	

WORK EXPERIENCES

Meta Platforms Inc, Menlo Park, CA - Software Engineer	Oct 2025 - Present
<ul style="list-style-type: none">Led modularization of a critical iOS infrastructure component (Swift/Obj-C), re-architected monolithic module into 15 modular components (-61% LOC, -66% files), converting a serial dependency chain into parallelizable build units, cutting cold build time 37.7s→10.8s (-71%)Migrated 100+ legacy DI registrations (Swift/Obj-C) from runtime wiring to compile-time safe XPlugin architecture, eliminating 150+ crash-prone code paths and reducing downstream recompilation via symbol visibility controlsCreated and maintained Claude AI skills and plugins for domain-specific code automation and dependency analysis, leveraging prompt engineering to help 200+ engineers ship 9k+ diffs	
MenuSifu. Inc, Manhattan, NY - Full-Stack Software Engineer	Feb 2025 - Oct 2025
<ul style="list-style-type: none">Architected a distributed data encryption system via microservices from scratch (Node.js, Express.js, AWS KMS, DynamoDB, Redis), processing 100k+ sensitive records daily; implemented MongoDB change streams and multi-region optimization, reducing latency 92ms→14ms while maintaining <10ms cached response timeDesigned deployment infrastructure for the data encryption system, with Docker containerization, CI/CD pipelines, and AWS cloud-native architecture, while implementing testing with Jest framework (achieving 95% code coverage).Engineered a MongoDB data synchronization system, implementing date-partitioned collections, automated indexing, and multi-threaded processing to handle 10k+ documents per batch with zero data loss and sub-second query performance, while building ETL pipeline with MongoDB aggregation pipelines, automated cron jobs, and AWS deployment.	
INTEL Corporation, Vancouver, BC - Software Research & Development Intern	Sep 2021 - April 2022
<ul style="list-style-type: none">Developed and implemented C-based optimization settings for quality-speed tradeoffs of low-delay streaming and video compression in the widely-used SVT-AV1 encoder, decreased ~10% bitrate loss and increased ~8% speed.Developed test scripts using Python and ran on AWS EC2 Linux instances for evaluating bitrate/speed tradeoffs for existing SVT-AV1 features; Collaborated across Agile teams to perform comparative analysis among video encoders in the market.Designed and implemented an optimized video decoder program using C. Simplified the 5 decoding levels to a more maintainable 2-level system. Integrated CI/CD pipelines to automate testing and deployment.	
Tencent Holdings Ltd, Shenzhen, China - Software Developer Intern	July 2019 - Aug 2019
<ul style="list-style-type: none">Built an event-driven notification system using Python and Flask framework to keep track of keywords and feedback given by users on stock forums. Created a user subscription interface using React.Integrated Python libraries to collect dynamically generated content data from JavaScript-based stock forums, enabling server-side JavaScript execution and rendering for comprehensive HTML access.Persisted users post data into MySQL databases consisting of >5G user data for further analysis and relational database management. Crafted schema and employed strategic indexing on crucial attributes for efficient data retrieval.	

PROJECTS

Blockchain-Based Carbon Market Platform - supervised by Prof. Xinlai Liu	Aug 2024 - Dec 2024
<ul style="list-style-type: none">Led the full-stack development of a blockchain carbon market platform, deploying chaincode using Docker, with Golang and Node.js for backend, and TypeScript with React for frontend and API. Enabling the tracking and trading of carbon credits for climate actions across 50+ entities (corporations, cities, states, etc.).Implemented token issuance, transaction, and clearance mechanisms in smart contracts. Simulated over 10,000 carbon credit trades with real data using CouchDB, boosting carbon tracking efficiency by 35% over traditional systems.Utilized cutting-edge technologies such as blockchain, Internet of Things (IoT), and digital twins to improve transparency and security, resulting in a 30% reduction in fraudulent carbon credit claims.	

SKILLS

Languages	Java, C++, Swift, Objective-C, Python, JavaScript/TypeScript, GoLang, C
DataBase & Cloud	MySQL, MongoDB, Oracle, NoSQL, DynamoDB
Frameworks	PyTorch, TensorFlow, React, Node.js, CUDA, MPI, OpenMP, NumPy, Flask, Spring, Maven
Tools	Linux, Unix, Git, AWS (Cloud Practitioner), Docker, Claude plugins