ZHONG YU

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- Extensive knowledge in Java ecosystem, RDBMS, concurrency, distributed system, internet technologies.
- Strong analytic and problem solving skills, detail-oriented, practical-minded. Curious and creative.
- Honor-bound, take pride and ownership in my own work, try to impress, always deliver. Enjoy teamwork.

Experience

Freelance   *Application Developer*   Houston, TX   2010 - 2020

- Developed and maintained websites and desktop applications for clients.
- Collected, processed, analyzed, and presented business data for clients.

Alibaba Group   *Technical Expert*   Hangzhou, China   2017 - 2018

- Worked on Apache Flink's SQL Query Processing module to add features and fix issues.
- Established a theoretical framework to transform any join-group-aggregate queries for optimization.
- Improved data warehouse TPC benchmarks; invented new transformation rules in the query optimizer.
- Analyzed and enforced SQL standard-compliance. Implemented full support for SQL Decimal type.

Atypon Systems   *Senior Software Engineer*   Santa Clara, CA   2001 - 2008

- Created a backend workflow system, with a modeling language, compiler, engine, and admin interface.
- Created various backend frameworks, including proprietary ORM, caching, distributed consensus.
- Create a frontend system for clients to edit, version, audit, stage, and publish web pages.
- Maintained and improved website performance, scalability and availability.
- Implemented various business features, in particular identity management, access control, e-commerce.
- Integrated with client systems through numerous proprietary and industry standard protocols.
- Worked directly with clients to resolve issues, gather requirements, and write specifications.

Fermi National Accelerator Lab   *Research Assistant*   Batavia, IL   1998 - 2000

- Implemented frameworks and algorithms in C++ for real-time collider data streaming and analysis.
- Wrote Labview applications for measurement of magnetic field in D0 collider detector.
- Wrote Delphi applications to control lab machines, to acquire and analyze experimental data.

Open Source

- rekex.org - PEG parser generator for Java 17, grammar as algebraic datatypes.
- bayou.io - Async HTTP server/client, high performance in functional style, full-featured.
- subpage - ReactJs router, simple API, flexible navigation models.

Education

M.S. in **Computer Science**	2001	Loyola University Chicago	Chicago, IL
M.S. in **Physics**	2000	Northwestern University	Evanston, IL
B.S. in **Physics**	1997	Peking University	Beijing, China