

ZHONG YU

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<https://zhong-yu.org>

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- Extensive knowledge in Java ecosystem, RDBMS, concurrency, distributed systems, 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 - 2021

- Developing and maintaining websites and desktop applications for clients.
- Collecting, analyzing, and presenting 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 aggregate pushdown.
- 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.

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

- Created a workflow system for document processing, with a language, compiler, engine, and admin interface.
- Created various backend frameworks, including proprietary ORM, caching, distributed consensus.
- Create a system for clients to directly modify webpages, to version, stage, and publish their edits.
- Maintained and improved website performance, scalability and availability.
- Implemented various business features, particularly 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 D \bar{A} collider detector.
- Wrote Delphi applications to control lab machines, to acquire and analyze experimental data.

Open Source

- [rekex.org](https://github.com/zhong-yu/rekex) - PEG parser generator for Java 17, grammar as algebraic datatypes.
- [bayou.io](https://github.com/zhong-yu/bayou) - Async HTTP server/client, high performance in functional style, full-featured.
- [subpage](https://github.com/zhong-yu/subpage) - ReactJs router, simple API, flexible navigation models.

Education

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