Zuyu ZHANG Resume

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EDUCATION

Ph.D., Database Systems — 12/22/2019
M.S., Computer Sciences — 12/22/2013
University of Wisconsin-Madison, Madison, WI, USA
Thesis: Towards Efficient Data Processing Methods For In-Memory Architectures.

M.Eng., Computer Systems Organization — 07/13/2012
Harbin Engineering University (HEU), Harbin, China

B.Eng., Computer Science and Technology — 07/09/2010
Harbin Institute of Technology (HIT), Harbin, China

EXPERIENCE

Sr. Software Engineer, Celonis Inc, Remote, U.S. — 07/18/2022-09/30/2023
- Prototyped a new cloud-native Process Mining engine based on **StarRocks**.
- Added specialized operators for graph functions in Process Query Language.

Software Engineer II, Amazon Web Services, East Palo Alto, CA — 09/30/2019-05/17/2022
- Worked on **Aurora** MySQL (AMS), a cloud-native managed database service.
- Launched AMS 8.0 as a team.
- Improved AMS 5.7 functionality, availability, reliability, and security.

Research Assistant, UW-Madison, Madison, WI — 01/22/2014-09/27/2019
- Worked on **Quickstep** to support TPC-H queries in C++.
- Prototyped **RecStep**, the first efficient datalog engine on DBMS, including the bit-matrix approach for Transitive Closure (TC) and Same Generation (SG).
- Worked towards a unified data engine for both SQL and graph analytics in **Rust**.

ACM SIGMOD Programming Contest, UW-Madison, Madison, WI 02/26/2018-04/08/2018
- Architected an in-memory analytical query engine from scratch as a team.
- Proposed join-sum-aggregate operator fusion, and index-based linear-joins.
- Winner among 30+ teams from 10+ countries.

Software Engineering Intern, Google Inc, Mountain View, CA — 10/03/2016-12/30/2016
- Implemented multi-tenant interactive reporting service.

Software Engineer Intern, Pro Unlimited, San Francisco, CA — 07/12/2016-09/30/2016
- Exploited streaming query plan generator on **Twitter Heron**.

Software Engineer Intern, Pivotal Software Inc, Palo Alto, CA — 06/22/2015-07/02/2016
- Exploited distributed OLAP techniques in **Apache Quickstep Incubator**.

Software Engineer Intern, Pro Unlimited, San Francisco, CA — 05/19/2014-08/08/2014
- Prototyped the first Mesos scheduler using the low level APIs for **Twitter Heron**.

- Derived the Mesos Executor with automatic failover.
- Demonstrated the scheduler in C++ running on a Mesos cluster of 150 nodes.

EXTRA-CURRICULARS	**President**, ACM Student Chapter, UW-Madison	2013-2015
	Member, Hoofer Sailing Club, UW-Madison	2013-2017

INTERESTS	Sailing, clarinet, and travel (9 countries).