Alice Ran Zhou

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AREAS OF EXPERTISE

Languages & Frameworks: C++, Java, Scala, Python, Hadoop, MapReduce, Spark, SQL, Zookeeper, Maven, Git

WORK EXPERIENCE

Google, *Display Ads Quality – Cross Device*, Software Engineering Intern   May – Aug. 2017
  – Designed and implemented finer-grained segmentation for cross-cookie link discovery ratio calculations
  – Optimized segmentation to only compute meaningful dimensions through data analysis
  – Reduced link storage by 22% while maintaining neutral revenue impact

Bloomberg, *Listed Derivatives Real-Time*, Financial Software Developer Intern   Sept. – Dec. 2016
  – Architected and implemented a real-time system that reflects market sentiment on binary events
  – Integrated a quantitative model that performs calculations with option market data
  – Designed a front end that presents relevant graphs to allow clients make informed decisions

LinkedIn, *Distributed Graph*, Software Engineering Intern   Jan. – Apr. 2016
  – Researched and experimented with graph partitioning heuristics for the next-generation graph database
  – Extended in-house Prolog-like query language to support keyword arguments
  – Drove discussion and implementation of how to represent the absence of data

Square, *Payment Products*, Software Engineering Intern   May – Aug. 2015
  – Designed and implemented a deposit reconciliation system to ensure that money is correctly transferred
  – Managed concurrency issues between the settlement pipeline and sharding job with ZooKeeper
  – Batch-loaded data to avoid nested transactions and reduced latency by 50%

PROJECTS / RESEARCH

Graph Database Benchmarking, *University of Waterloo*, Research Assistant   May 2016 – May 2017
  – Simulated real-time, streaming behavior of transactional workloads via a Kafka-based update mechanism
  – Provided a Gremlin reference implementation for LDBC SNB Interactive Workload queries
  – Paper published in GRADES: http://dl.acm.org/citation.cfm?id=3078459

Warcbase, *University of Waterloo,* Research Assistant   Sept. – Dec. 2015
  – Built a fluent interface in Scala to make Spark data analysis accessible for digital historians
  – Analyzed and visualized web archive link connections with Python and D3.js
  – Paper published in JOCCH: http://dl.acm.org/citation.cfm?id=3097570

EDUCATION

University of Waterloo, Bachelor of Computer Science, 3.91 cumulative GPA   2014 – 2019 (expected)
  – **Select coursework**: Big Data Infrastructure, Algorithms, Operating Systems, Models of Computation
  – **Awards**: Scotiabank Software Engineering Entrance Scholarship,   2014 – 2017
      – Waterloo's largest engineering scholarship ($20 000), awarded for student excellence

Associate of the Royal Conservatory practical piano diploma, Royal Conservatory of Music   2012