

Tim Hung

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WORK

Bloomberg L.P.

New York, NY

Senior Software Engineer — Autocomplete (*C++, Python, Kafka, Redis*) **05-2019 – PRESENT**

- Led project to scale a system for ranking Autocomplete results based on real-time hits data
 - Architected low latency data pipeline for user hits using Kafka, DB sinks, and multi-level caching
 - Sharded architecture across distributed cluster to concurrently handle 2k+ msg/s
 - Reduced E2E latency to <50ms including investigating and uncovering a bug in Comdb2
 - Devised a method to rank results by aggregating hits with exponential decay
 - Built telemetry framework to monitor throughput, latency, and system health
 - Laid the foundation for subsequent projects to enrich Autocomplete with real-time user history
- Designed a configurable self-service procedure to validate Autocomplete data ingestion
- Improved core Autocomplete query tokenization algorithms
- Envisioned and built MVP for a tool to visualize/replay past user queries in real-time
- Broader Work:
 - Rearchitected a company-wide infra change by consolidating redundant machine-state services
 - Ported legacy codebase to Py3.10 & C++17, modernized CI, set standard for comprehensive testing
 - Heavily involved in recruiting: speaking on panels, D&I, interviewing, mentoring

Software Engineer — Data Intelligence (*Python*)

10-2018 – 05-2019

- Automated large scale data migrations by building high performance ingestion daemons
- Enriched internal machine learning infrastructure tools with improved visualizations

Software Engineering Intern — Data, Web, & Analytics (*JS, C#, Angular*)

06-2017 – 08-2017

- Leveraged global geolocation data to refine search functionality with responsive map views

Microsoft

Bellevue, WA

Software Engineer / Product Manager Intern — Cortana (*Azure, C#*)

05-2016 – 08-2016

- Developed platform to extend Cortana compatibility with over 340 new services

SKILLS

Languages: Python, C++, JavaScript, Java, Bash, SQL

Tools: Kafka, Redis, Docker, Kubernetes, Git, Vim, Grafana, Humio, Agile

US Citizen, fluent in English and Mandarin

SCHOOL

Binghamton University, SUNY, B.S. Computer Science, B.A. Mathematics
ACM Student Chapter Chair and ACM ICPC Coach, *ILME* Math Honor Society
Course Assistant for CS140 Object Oriented Programming

2014 – 2018

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