Tim Hung

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WORK

B Bloomberg L.P.
New York, NY

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

- Led project to scale up the system for ranking results based on personalized real-time hits.
  - 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.
- Designed configurable self-service system to validate autocomplete data ingestion.
- Improved core autocomplete engine query tokenization algorithms.
- Envisioned and built MVP for tool to visualize/replay past user queries in real-time.
- Worked to improve developer experience and be involved outside of engineering projects .
  - Modernized legacy codebase to Python 3.10 and C++17.
  - Active in on-call rotation, code reviews, client tickets.
  - Maintained clear and concise documentation and comprehensive unit and integration tests.
  - Heavily involved in recruiting: speaking on panels, D&I, interviewing, mentoring.

Software Engineer — Data Intelligence *(Python)*   **10-2018 – 05-2019**

- Integrated new financial data sources by implementing high performance ingestion daemons.
- Automated large scale data migrations.
- Enriched internal machine learning infrastructure tools with improved visualizations.

Software Engineering Intern — Data, Web, & Analytics *(JS, C#, Angular)*   **06-2017 – 08-2017**

- Leverage global geolocation data to refine search functionality.
- Render web and mobile responsive map views using Angular.

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, Git, Vim, Grafana, Humio, Agile, GNU/Linux, LaTeX
US Citizen. Fluent in English and Mandarin.

SCHOOL

Binghamton University, SUNY, B.S. Computer Science, B.A. Mathematics   **2013 – 2018**
Lyle & Dorothy Feisel Scholarship, University Scholars, $\Pi M E$ Math Honor Society, Dean's List
ACM Student Chapter Chair and ACM ICPC Coach, HackBU (Hackathon) Organizer
Course Assistant for CS140 Object Oriented Programming