

Hung-Yuan (Henry) Shih

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Experience

Bloomberg

2018-present

Senior Software Engineer, Listed Derivatives Core Team

New York, NY (08/18-present)

- Led the Derivatives Data Metering project to help higher management make budgeting decisions on resource allocation. Implemented a Business Intelligence framework which aggregated multiple data sources and leveraged internal storage tools while managing communications with engineering team leads and business teams.
- Developed and supported the automation workflow for creating Derivatives products on the Bloomberg Terminal by ingesting files from dozens of Derivatives exchanges, replacing 95% of the manual work.
- Improved the stability of Option Monitor on the Bloomberg Terminal by designing validation features in the backend service as well as the Bloomberg Terminal UI to prevent mistakes from analysts' manual updates, eliminating 90% of client complaints caused by human errors in updating Options information accessed by all terminal users globally.
- Enabled my team to support new Option data types by creating a new workflow that combined multiple proprietary storage and publishing tools, resulting in new point-in-time data granularity (wasn't provided before), a Bloomberg Terminal UI for clients to manually update the data in the backend, and API for developers to access the data.

BlackRock

2015-2018

Associate, Core Software Infrastructure

New York, NY (11/16-07/18)

- Re-architected the backend infrastructure for iRetire, BlackRock's retirement web product, to eliminate product outages due to application server crashes and data center outages that took up to 30 minutes to restore. Achieved such goal by changing message routing in the backend from single instance for single data center to multiple instance cross data center. Implemented the code changes and executed the deployment strategy with network teams to ensure a seamless rollout.
- Strengthened the security robustness of the messaging infrastructure between applications by implementing security measures and limiting the rate of requests from internet-facing applications to prevent the system being flooded by malicious requests, reducing the number of related security incidents to zero.

Analyst, Core Software Infrastructure

New York, NY (07/15-11/16)

- Scaled the backend computing infrastructure to handle the stress caused by growing business demand, redesigned the algorithm for the scheduling task which managed all computing resources to eliminate the performance bottleneck. Enabled the computing cluster to scale to 10 times its size if necessary, projected to be sufficient for more than 10 years of business growth.

Morningstar

2014-2015

Rotational Software Engineer, Data Collection

Chicago, IL (01/15-07/15)

- Initiated the automation of news data and developed tool sets with Natural Language Processing to allow the Financial News Team to tag news topics without human intervention, reducing 90% of manual work to categorize news on the Morningstar website.

Rotational Software Engineer, Information Security

Chicago, IL (07/14-12/14)

- Advised application teams on security practice and conducted penetration testing to close out security threats before being exploited.

Education

University of Michigan

2010-2014

Bachelor of Science in Engineering, Computer Science.

Ann Arbor, MI

Skills

C++, Java, Python, Swift, Octave

Additional

- *Community Leadership:* **Founder**, APG Sports: Founded a sports league at BlackRock, hosted weekly games across 3 sports, and recruited more than 80 active participants ranging from Analysts to Managing Directors.
- *Certifications & Licenses:* Passed CFA Level 1
- *Additional Coursework:* Machine Learning (Offered by Stanford on Coursera)
- *Side Projects:* **Tech Blogs:** Wrote about ML sports analytics and computer hardware; **iOS App Development:** Developed WeLync, a networking app that helps users build deep relationships; **Financial Chatbot:** Built a Facebook chatbot that helps users make better investment decisions.