

SHENGJIA YAN

646-204-9230 · sy2703@nyu.edu · <https://yanshengjia.com> · <https://github.com/yanshengjia>

EDUCATION

New York University (NYU), *M.S. in Computer Engineering*, GPA: 3.7/4.0 *New York* 2019.08 - 2020.12
Southeast University (SEU), *B.S. in Computer Science*, GPA: 3.6/4.0 *Nanjing, China* 2013.08 - 2017.06

SKILLS

- **Languages:** Java, Python, Typescript, Dart, SQL, HTML, CSS, Shell, \LaTeX
- **Cloud Development:** AWS, Firebase
- **Frameworks:** AWS CDK, React, Flutter, Tornado, Stencil, Qt, PyTorch

WORKING EXPERIENCE

Amazon SDE2 @ Amazon New York 2021.02 - Present

- Developed and maintained **Business Reports (BR)**, the highest-trafficked product in Seller Central (1.2k TPS), providing critical business metrics to Amazon sellers globally. This product is a cornerstone for seller decision-making and performance tracking.
- Designed and implemented **ASIN-level Recommendations** in BR, the first project to bridge two key organizational products: Manage Your Growth (MYG) and BR. Leveraged **AWS Lambda** to execute search queries in MYG's **ElasticSearch** DB, generating actionable recommendations. This feature increased MYG traffic by 35%, driving cross-product engagement and value.
- Modernized **BR ETL Data Pipeline** by migrating 100+ ETL jobs to **Airflow** (AWS MWAA). This transition improved pipeline efficiency, reduced manual errors, and streamlined data processing, ensuring reliable and timely delivery of business-critical metrics.
- Designed and implemented a **BR Data Freshness Dashboard** to proactively monitor data ingestion. Utilized a custom **Airflow** operator to publish metrics to **AWS DynamoDB**, **AWS EventBridge** to listen for ingestion events, and **AWS Lambda** to calculate and publish freshness metrics to **CloudWatch**. This solution reduced at least 2 Sev2 incidents per month, improving system reliability and operational efficiency.
- Built a **Micro Frontend** for ASIN Spotlight using **Stencil** web components, encapsulating business logic, data fetching, and UI widgets. This modular approach accelerated frontend development at scale, enabling teams to independently own and deploy reusable widgets across multiple pages, fostering faster iteration and collaboration.

Amazon SDE Intern @ Amazon Payment Products New York 2020.06 - 2020.08

- Used **AWS CDK** to create and manage **NAWS** infrastructure including a **SQS**, a **SNS** and a **Lambda** function to retrieve data from PayStation by onboarding **CloudAuth**
- Fully launched the project to Amazon **production** environment, reduced A203 error by 93% for ARI lookup Chase API and reduced 2-3 high severity tickets for team monthly

17zuoye Software Engineer Beijing, China 2017.06 - 2019.06

- Designed and implemented a **Web** based automatic essay enhancing system which has been brought online and served millions of K-12 students in China
- Implemented real-time asynchronous updates of the frontend UI using **JavaScript**, **HTML**, **AJAX** and **Bootstrap**
- Built the backend service using **Tornado** with **MongoDB** as database and deployed on **AWS**
- Responsible for code integration, unit test, pressure test, build and test automation by integrating Gitlab continuous integration tools (CI/CD) with **Docker**

Southeast University Knowledge Science and Engineering Lab Research Intern 2015.05 - 2017.05

- Carried out data preprocessing using NLP approaches like spaCy to refine and analyze the text datasets (x1.2 speedup)
- Presented and implemented a Random Walk algorithm in Python based on the Probabilistic Graphical Model to perform word-sense disambiguation on Web tables
- Achieved a 6% increase in F1-score compared to the latest published schemes. The result was **published in [1, 2]**

PUBLICATIONS

1. "Language to Network: Conditional Parameter Adaptation with Natural Language Descriptions", In proceedings of the 58th Annual Meeting of the *Association for Computational Linguistics*, ACL 2020: 6994-7007. [pdf][code]
2. "Entity Linking in Web Tables with Multiple Linked Knowledge Bases", In proceedings of *Semantic Technology: 6th Joint International Conference, JIST 2016*. Springer, Cham, 2016: 239-253 [pdf]
3. "A Method of Entity Linking in Web Tables based on Multiple Linked Knowledge Bases", Chinese Patent, CN106503148A, 2017