

# Jeff Shih

+1-917-6792720 / New York, NY / [yfs219@nyu.edu](mailto:yfs219@nyu.edu) / <https://github.com/KShih> / <https://www.linkedin.com/in/yi-fan-shih/>

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## EXPERIENCE

### **Advantech Inc, Software Engineer Intern**

Jun'20 - Jul'21

- Optimized **MongoDB** schema and queries: Increasing **10%** efficiency of aggregated queries, **8%** efficiency of inserted queries, and decreasing **600%** of disk usage (**200%** on index usage) as measured by the QA's report.
- Developed backend service with **Microservices** architecture, and deploy to **Kubernetes**. (**Docker, Helm charts**)
- Designed **RESTful API** which served **10k+** traffic to let customers easily interact with **gRPC** backend.
- Asynchronously analyzed data changes (**1.2 billion** lines per 20 minutes) by using goroutine (**Golang**).
- Developed the [Golang SDK](#) for the customer to assuredly send IoT device data through MQTT to RabbitMQ.
- Developed backend features using **ORM** frameworks to serve **HTTP** and **gRPC** protocols. (**NodeJS, Golang**)

### **New York University, Teaching Assistant in Introduction to Java**

Jan'20 - Jun'20

- Assisted professor in class, graded/provided feedback for 70+ students coding homework and held office hours.
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## EDUCATION

### **New York University, United States**

Sep'19 - May'22

*M.S., Computer Science, GPA:3.5 / 4.0*

- **Algorithm**, Advance Database, Cloud Computing and Big Data, Computer Vision

### **National Chiayi University, Taiwan**

Sep'14 - Jun'18

*B.S., Computer Science and Information Engineering, GPA:3.87 / 4.0*

- **Algorithm, Data Structure**, Software Engineering, Introduction to Artificial Intelligence
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## PROJECTS

### **NYC CityStreets** [https://github.com/KShih/fall2019-cs-gy-6063-team-five\\_fries](https://github.com/KShih/fall2019-cs-gy-6063-team-five_fries)

Sep'19 - Dec'19

*Course project, Product Owner and Programmer*

- A renting app that integrated 3rd party renting services to let users easily search apts. (**Django, HTML5, CSS**)
- Optimized external API fetching time by **70%** by using **Celery** and **Redis** on background fetching.
- Achieved **94%** test coverage by **unit testing** on the internal and external APIs. (**Python, pytest**)
- Utilized **Agile** Development includes Scrum, Sprint, testing, code review and **CI/CD**.

### **Restaurant Recommendation Chatbot**

Aug'19 - Apr'20

*Side project, <https://github.com/KShih/dining-chatbot>*

- Built a restaurant recommendation chatbot with serverless microservice architecture on **AWS**.
  - Integrated S3, API Gateway, SQS and Lambda to implement on-demand service.
  - Decreased **30%** response time by using **DynamoDB** and **ElasticSearch** on the big data of Yelp API. (**NodeJS**)
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## TECHNICAL SKILLS

**Programming Language:** Golang, Java, Python, JavaScript (NodeJS, React)

**Operating Systems:** Linux;

**Database:** MongoDB, DynamoDB, PostgreSQL, MySQL, SQLite;

**Others:** AWS, Kubernetes, Docker

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## AWARDS

### **2015 ITSA Annual Collegiate Programming Contest (Top 4 out of 64 Teams)**

Jan'15 - Jun'15

- Algorithms Programming contest.

### **The Third Place, 2016 Smart City Hackathon (32 Teams)** <https://seedcard.duckll.tw/>

Nov'16

- Web Application: Provided users with a newly intuitive forum reading experience.