

XIAOCHEN (NIGEL) LU

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EDUCATION

New York University

Master of Science in Computer Science

New York, NY

May 2025

- Cumulative GPA: 3.88/4.0; Coursework: *Algorithms, Computer Vision, Software Engineering, Network Security, Big Data*

New York University

New York, NY and Shanghai, China

Bachelor of Science, Data Science, minor in Computer Science

May 2023

- Cumulative GPA: 3.91/ 4.0; Magna Cum Laude; NYU Honors Scholar; Dean's List for all Years
- Coursework: *Machine Learning, Deep Learning, NLP, Probability & Stats, Data Structures, Database, Econometrics*

SKILLS

- Technical Skills: **Python** (PyTorch, Django, Pandas, NumPy, SciPy), **High-performance/Distributed Computing**, **Java** (Spring Boot, multi-threading), **JavaScript** (TypeScript, React, Vue, ExpressJS), **CI/CD** (Travis + AWS), **SQL** (MySQL, PostgreSQL)

RESEARCH & PROJECTS

Few-shot Segmentation with Adaptive Data Augmentation and Cross Attention

Shanghai, China

Co-authored a paper and submitted to CVPR 2023

Mar. 2022 - May 2023

- Proposed an instance-aware data augmentation strategy to improve support image diversity and reduce distribution inconsistency between query and support images in low-data regimes, boosting model performance by 3.7% in ablation studies
- Incorporated a 4-D consensus cross attention module to align query and support features, increasing accuracy by 5.4%
- Wrote 1000+ lines of code to build a scalable PyTorch codebase for few-shot segmentation research, enabling easy backbone swaps

Multimodal Online Student Engagement Dataset

Abu Dhabi, UAE

Co-authored a paper and published on **Nuclear Physics B** journal

May 2021 – Mar. 2022

- Created a 17GB labeled engagement detection dataset of 300+ participants in online learning settings
- Investigated the correlation between post-class self-evaluation results and personality surveys to provide insights on how personality may relate to engagement level in online learning. Apply various significance tests (e.g., T-test) to verify the potential correlations
- Established a CNN-RNN hybrid baseline model to process spatial and temporal signals simultaneously

Parkrowd NYC

New York, NY

Parking Made Easy - Crowd-sourced Parking Info Sharing Platform based off of NYC Open Data

Sept. 2023 – Dec. 2023

- Conceptualized a parking info sharing platform by listing MVP, MLP, API documentations, and using Figma prototyping
- Implemented Parkrowd as a Django App with a team of 5 through Scrum and ZenHub (repo: <https://github.com/NigelLu/Parkrowd>)

PROFESSIONAL EXPERIENCE

eBay Inc.

Shanghai, China

Software Engineering Intern, Cloud Infrastructure Team

Sept. 2022 – Aug. 2023

Average-Time-to-Business (ATB) Dashboard

- Proposed and implemented a Redux + React+Django Average-Time-to-Business (ATB) dashboard to monitor cluster statuses and send checkout alerts, reducing crisis response time by 25% and boosted service availability from 99.14% to 99.8%
- KeyHub (Community's Encrypted Email UI for Password Exchange)**
 - Led the refactorization of KeyHub to conform with the latest OpenPGP standard and patched 60+ security vulnerabilities
 - Integrated KeyHub with eBay's Cloud Console using JS-plugin and Redux, boosting productivity of over 100 infra engineers

Kaizntree Co.

New York, NY and Remote

Co-founder and CTO

Sept. 2021 – Present

Kaizntree Small Business Management Platform

- Built a one-stop management solution for small businesses using Vue, Django Rest Framework, PostgreSQL, and Heroku, empowering 100+ happy customers by reducing time spent on management tasks from 15 to just 2 hours per week
- 2-way integrated with 4 major sales channels using OAuth2, including Shopify, Square, Etsy, and Xerox, and automated stock sync across platforms, putting an end to the cumbersome manual updates and stock inconsistency on different channels
- Led Kaizntree's development team and adopted Scrum, Travis CI/CD with Heroku to minimize friction, allowing Kaizntree to address customer feedbacks under 48 hours and continuously rolling out new features weekly
- NYU Summer Launchpad & NYUxYale Startup Competition**
 - Won the 2023 NYU Summer Launchpad and 2023 NYUxYale Startup Competition, receiving a \$10,000 non-dilutive funding
 - Currently applying for Y Combinator and Techstars (startup accelerators), under 1-on-1 mentorship from established entrepreneurs
 - Earned investment from 3 individual investors and received a total of \$50,000 investment with Kaizntree valued at 4 million

Expsoft Ltd.

Wuxi, China

Software Engineering Intern

May 2021 – Sept. 2021

- Leveraged the power of Springboot and Maven to build resilient and user-friendly auditing platforms for governments
- Secured a project from Soochow government worth \$250,000 to supply customized audit platform