

XIAOCHEN (NIGEL) LU

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EDUCATION

New York University Sept. 2023 – May 2025 (Expected and can be Earlier)
M.S. in Computer Science, merit-based scholarship of \$6,000/year.

New York University Sept. 2019 – May 2023
B.S. in Data Science, minor in *Computer Science*, GPA: 3.91/4.0

- Honors & awards: *Magna cum Laude*, *NYU Honors Scholar*

- **Computer vision researcher** focusing on semantic segmentation in few-shot learning scenarios

Relevant courses: *Applied Internet Technologies* (React), *Data Structures*, *Databases*, *Computer Architecture* (concurrency, multi-thread), *Algorithms*, *Software Engineering* (scrum dev), *Intro to Java* (Spring Boot, Maven)

SKILLS

- Programming: Proficient in **JavaScript**, **Python**, **Java**, and **SQL**, familiar with **Bash**.
- Development: Familiar with **PyTorch**, **Slurm Scripts**, **ReactJS**, **NodeJS**, **Django**, **Django Rest Framework**, **Spring Boot**, **Scrum**, **CI/CD** (Travis CI + AWS), **Git**, knowledge on **Docker** and **AWS**.

RESEARCH EXPERIENCE

Few-shot Segmentation with Adaptive Data Augmentation and Cross Attention NYU
Research Assistant mentored by [Professor Li Guo](#). Paper submitted to **CVPR 2023** Mar 2022 to 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.
- Incorporated a 4-D consensus cross attention module to align query and support features for improved generalization ability.
- Set up a neat and re-usable visualization codebase (based on Open-CV, PyTorch, and plotting libraries like Matplotlib) with well-documented APIs to help verify and visualize the results of our proposed model.

Multimodal Online Student Engagement Dataset SMART-LAB NYU Abu Dhabi, UAE
Research Assistant mentored by [Professor Hanan Salam](#) May 2021 to Mar 2022
Co-authored a paper and published on *Nuclear Physics B* journal.

- Created an engagement detection dataset in online learning with post-class survey results as auxiliary label
- Established a CNN-RNN hybrid model that processes spatial and temporal signals as the open-source baseline for the dataset, enabling easier benchmarking and comparison
- Adopted statistic tools (significance tests) to validate correlations between personality and engagement levels

PROFESSIONAL EXPERIENCE

Kaizntree Co., Co-founder, Full-stack Engineer Sept. 2021 – Present
Co-founded Kaizntree: solution provider for a one-stop management platform for small businesses

• Kaizntree Small Business Management Platform

- Built a comprehensive management platform powered by VueJS, Django, and PostgreSQL for 100+ small businesses, seamlessly integrating with major sales channels like Shopify, Square, Etsy, Xerox
- Combined Django Rest Framework with agile development (scrum) and CI/CD, allowing Kaizntree to resolve customer feedbacks under 48 hours and build a wholesale workflow from scratch under 7 days

• NYU Summer Launchpad

- Stood out in the 2023 NYU Summer Launchpad program and won the 2023 NYUxYale Startup Competition, where Kaizntree was awarded 1-on-1 mentorship from established entrepreneur coaches
- Secured a \$10,000 non-dilutive funding and \$15,000 in AWS credits, used to expand Kaizntree's server capacity to provide customers a smoother experience
- Picked by two investors and received a total of \$30,000 investment

eBay Inc., Software Engineering Intern Sept. 2022 – Aug. 2023

• Average-Time-to-Business (ATB) Dashboard

- Conceptualized and proposed a web-based ATB dashboard for live monitoring of clusters and ongoing change requests (CRs), enabling efficient tracking of past issues and reducing issue/crisis response time
- Spearheaded the development of the ATB dashboard as a Redux + ReactJS + Django application
- Benefited over 100 infrastructure engineers with improved incident response time, streamlined rollout processes, and better operational efficiency

- **KeyHub (Community's Email UI for Encrypted Password Exchange)**

- Led the migration of eBay's KeyHub UI from Vue to React to align with eBay's tech stack
- Upgraded KeyHub's encryption library to conform with the latest OpenPGP standard, fortifying security for password exchange across eBay's infrastructure team
- Integrated KeyHub into eBay's cloud console UI using JS-Plugin, further enhancing user experiences

Expsoft Ltd., Software Engineering Intern

May 2021 – Sept. 2021

- **Expsoft Auditing Platform**

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

VOLUNTEER EXPERIENCE

English Teacher, Steppingstones Shanghai

Oct 2019 to Dec 2019

- Teach English for a class of 52 elementary-level children of migrant workers in Shanghai to promote education equality
- Design and organize thoughtful interactive classes to best students' learning experience