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*](https://shanghai.nyu.edu/academics/faculty/directory/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*](http://www.hanansalam.com/)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