XIAOCHEN (NIGEL) LU

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EDUCATION

New York University, Tandon School of Engineering

M.S. in Computer Science, awarded a scholarship of \$6,000

New York University, NYU Shanghai

B.S. in Data Science, minor in Computer Science

One-year study-away at New York University, New York Campus

• Cumulative GPA: 3.9/4.0, Data Science Major GPA: 3.96/4.0

- Honors & awards: Magna cum Laude, NYU Honors Scholar, NYU Shanghai Excellence Award
- · Courses: Applied Internet Technologies, Data Structures, Databases, Information Visualization, Computer Architecture

SKILLS

- Lingual: proficient in English and Chinese speaking/writing
- **Programming**: Intermediate level in Python, JavaScript, Git VCS; an advanced beginner in Linux terminal and a beginner with C++ and Java.
- Office & G-Suite: familiar with Office suite and Google suite (e.g., Google sheets, PowerPoint, etc.)

ON-CAMPUS EXPERIENCE

Chinese Admissions Ambassador, NYU Shanghai Chinese Admissions Office

Oct 2019 to May 2023

New York, NY

Shanghai, China

Sep 2023 – May 2025

Sep 2019 – May 2023

Sep 2021 – May 2022

- Hosted or co-hosted online/in-person panels for information sharing and advertising admissions events.
- Led weekly campus tours during weekends and present NYU Shanghai to potential students and their parents.
- Assisted in the admission process by performing data cleaning/analysis on applications and provide quantitative insights.

 Resident Assistant, NYU Shanghai Office of Residential Life*

 Aug 2020 to Jun 2021
- Reached out to and collaborate with different departments/other RAs to hold meaningful on-campus events for residents.
- Shouldered responsibilities like bulletin board, resolving issues resident may encounter, assessing and escalating crisis.

PROFESSIONAL EXPERIENCE

eBay Inc., Software Engineering Intern

Shanghai, China

Built, improved, and redesigned some of eBay's cloud platform UIs

Sep 2022 – Jul 2023

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

- o Proposed a web-based dashboard for live monitoring of cluster status and on-going CRs.
- o Led the implementation of the ATB dashboard as a modern single-page application by employing Redux, Antd UI library.
- o Updated the dashboard periodically to cater to different needs, serving a team of over 60 infrastructure engineers.

• KeyHub (encrypted email UI for password exchanges)

- o Migrated eBay's KeyHub from Vue to React to align with eBay's frontend tech stack.
- o Upgraded KeyHub's encryption library to the latest OpenPGP for enhanced security.
- o Refactored over 95% of the code for reduced API calls, faster rendering speed, and ease of use (tooltips and feedback).
- o Integrated the new KeyHub to eBay's cloud console UI as a plugin using JS-Plugin.

• Public L7 Rule UI

- o Built an extremely user-friendly UI for configuring and viewing the status of public L7 rules on eBay's cloud platform.
- o Embedded helpful validation feedback for most fields in the L7 rule form via API calls (async)/Regex (real-time).
- o Designed a robust auto filling mechanism to manage the complex dependencies/relationships between fields.

Kaizntree Ltd., Full-stack Engineer

New York, NY & Remote

Established a startup building a one-stop management platform for small businesses (website <u>here</u>)

Sep 2021 – Sep 2022

• Kaizntree UI & Backend

- o Adopted VueJS combined with Vuetify component library to offer users a consistent and fluid UI experience.
- o Carefully designed and delivered a one-stop platform covering needs from inventory transaction processing, product building and sales to item tracking via QR codes, helping over 40 small businesses to manage their workflow.
- o Leveraged Django's versatility to build backend services that support rollbacks and agile responses to allow safer version iterations and cater to evolving user demands.

• NYU Summer Launchpad

- o Got selected to the 2023 NYU summer launchpad under our team's effort and strong technical foundation.
- o Received a \$10,000 non-dilutive funding and \$10,000 AWS credits for running our online platforms.

RESEARCH & PROJECTS

Few-shot Segmentation with Adaptive Data Augmentation and Cross Attention

NYU Shanghai

Research Assistant mentored by <u>Professor Li Guo</u>. Co-authored a paper and 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.
- Used PyTorch to build a scalable codebase for few-shot segmentation research, enabling easy backbone swaps and semi-auto experience in running experiments on Linux high-performance computing clusters.
- 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

May 2021 to Mar 2022

Research Assistant mentored by <u>Professor Hanan Salam</u>

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

• Created an engagement detection dataset in online learning settings with post-class survey results as auxiliary label.

- Established a CNN-RNN hybrid model that processes spatial and temporal signals as the baseline for the dataset.
- Adopted statistic tools like significance tests to validate the correlation between personality evaluations and engagement levels.