**XIAOCHEN (NIGEL) LU**

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**EDUCATION**

**New York University**  New York, NY

*M.S.* in *Computer Science* **(**Cumulative GPA: 3.95/4.0)Sept. 2023 – May 2025

Relevant Coursework: Intro to Java (Spring Boot), Software Engineering (Django + scrum development), Algorithms, Computer Networking, Network Security, Intro to Offensive Security, Information Security, Programming Languages, Big Data

**New York University** New York, NY and Shanghai, China

*B.S.* in *Data Science,* double major *Finance,* minor in *Computer Science* (Cumulative GPA: 3.91/ 4.0) Sept. 2019 - May 2023

Latin Honor: Magna Cum Laude; NYU Honors Scholar; Dean’s List 2019-2023

Relevant Coursework: Applied Internet Technologies, Computer Architecture (C), Data Structures (OOP), Databases, Machine Learning (TensorFlow), Natural Language Processing (PyTorch)

**SKILLS**

***Programming Languages:*** Python, JavaScript, TypeScript, Java, SQL, C, C++, R, CSS, HTML

***Frameworks & Tools:*** React.js, Next.js, Vue.js, Redux, Tailwind CSS, Django, Spring Boot, Git, Docker, Kubernetes, PostgreSQL, PyTorch, PySpark, Hadoop, Figma Prototyping, Circle/Travis CI (CI/CD), AWS EC2/EB/RDS

***Other:*** Scrum Development, Linux, Slack, Office/Google Suite, Teamwork

**PROFESSIONAL EXPERIENCE**

**Department of Design and Construction, NYC Government** Software Engineer Intern (New York, NY) **Jun. 2024 – Aug. 2024**

* Created, trained, and tuned machine learning models using Azure ML Studio, ***PySpark***, and Hadoop, applying random forest regressor and time series forecasting to predict construction timelines and enhance construction planning efficiency
* Built a React app with Django to deliver analysis results and incorporated ***OpenAI API*** to provide AI-powered interactive data insights for over 400 construction engineers within the Department of Design and Construction

**eBay Inc.,** Software Engineering Intern – Cloud Infrastructure Team (Shanghai, China) **Sept. 2022 – Aug. 2023**

* Identified the inefficiencies in cluster status monitoring and developed an Average-Time-to-Business Dashboard using ***Redux***, ***React.js***, and ***Django***, which enhanced cluster alerting mechanism and visualized factors that impact service availability, cutting crisis response time by 25%
* Upgraded eBay’s KeyHub from ***Vue2*** to ***React*** and integrated it into eBay’s Cloud Console using TypeScript, Redux, and JS-Plugin, updating it to the latest ***OpenPGP*** standard to ensure secure password exchange for over 100 infra engineers
* Developed an intuitive interface that automates over 85% of config entries for L7 rule configuration on eBay’s ***Kubernetes*** clusters—load balancing rules at the application layer—increasing efficiency by over 70% and minimizing human errors

**Kaizntree Co.,** Full-stack Software Engineer (New York, NY and Remote) **Sept. 2021 – Feb. 2024**

* Built a one-stop management solution for small businesses using ***Vue****,* ***Django REST framework****,* and***PostgreSQL***, reducing customers’ time spent on administrative tasks from 15 hours average to just 2 hours per week
* Adopted ***Scrum Development, Travis CI/CD*** with ***AWS*** (later migrated to ***Heroku***) to minimize friction throughout the software development lifecycle (SDLC), enabling Kaizntree to address BUGs 40% faster
* Implemented the ***2-way integration*** between Kaizntree and 4 major sales channels using ***OAuth2*** (Shopify, Square, Etsy, and Xero), enabling automatic cross-platform stock & order synchronization, thus eliminating manual updates and inconsistency in stocks
* Led Kaizntree’s scrum team of three and fostered a collaborative environment, where robust new features were rolled out bi-weekly

**Expsoft LLC.**, Software Engineering Intern (Wuxi, China) **May 2021 – Sept. 2021**

* Developed a highly customizable web auditing platform for governments using Spring Boot, ***Activiti Workflow Engine***, MySQL
* Secured a $1,140,000 contract from the Soochow government to build a tailored audit platform fitting their needs

**RESEARCH & PROJECTS**

**Parkrowd NYC**, a Parking Spot Info-Sharing Platform based on NYC Open Data(prod app [*link*](http://parkrowd-env.eba-spjjw3yh.us-west-2.elasticbeanstalk.com/), repo [*link*](https://github.com/NigelLu/Parkrowd)) **Sept. 2023 – Dec. 2023**

* Conceptualized a parking info-sharing platform to tackle urban parking issues using Figma, outlining MVP and MLP feature sets
* Led a Scrum team of 5 to implement Parkrowd as a Django RESTful app integrated with Google Maps API
* Created an automated CI/CD pipeline utilizing TravisCI, AWS Elasticbeanstalk, and Coveralls.io to improve deployment efficiency

**Rate My Professor**, a redesigned Single-page App for Students to Upload/View Professor Ratings(repo [*link*](https://github.com/NigelLu/RateMyProfessor)) **Sept. 2023 – Dec. 2023**

* Coordinated efficient full-stack development using scrum sprints and backlogs, allowing my team to roll out the app in 2 months
* Utilized Maven, Spring Boot with ***JPA***, ***Spring Security***, and *multi-threading* to build a robust, highly concurrency-capable backend

**Few-shot Segmentation with Adaptive Data Augmentation and Cross Attention** ([*link*](https://arxiv.org/abs/2401.09866) to paper on arXiv) **Mar. 2022 - May 2023**

* Proposed an instance-aware data augmentation strategy to improve support image diversity and reduce distribution inconsistency
* Incorporated a 4-D consensus cross-attention module to align query and support features, increasing accuracy by 5.4%