CHAO HONG

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EDUCATION

The City College of New York **December 2024**
Bachelor of Science in Computer Science

SKILLS

Languages: Javascript, Typescript, Python, SQL, Java, x86 Assembly, C++
Web Development: HTML, CSS, ReactJS, Next.js, Node.js, Flask, TailwindCSS, Jest
Databases & Tools: PostgreSQL, Supabase, MongoDB, Prisma ORM, Git, GitHub, Chart.js
Machine Learning & Data Science: Jupyter Notebook, TensorFlow/PyTorch, scikit-learn, Pandas/NumPy
Methodologies: Agile, SCRUM, Test-Driven Development (TDD), Object-Oriented Programming (OOP)

EXPERIENCE

Data Entry Clerk Intern **(June 2019 - August 2019)**
Jupiter Legends Corporation *New York, New York*
- Digitized and organized archival company data into structured digital formats for rapid retrieval.
- Supported CRM/database maintenance and assisted customers with booking logistics via phone.

DOE Tech Intern **(September 2021 - December 2021)**
Battery Place School *New York, New York*
- Installed and configured DOE-mandated software and firewall systems across school devices.
- Diagnosed and resolved hardware/software issues for teachers and admin staff, ensuring IT uptime.
- Maintained school network performance and performed system updates across 50+ endpoints.

Software Engineer Intern **(March 2024 - May 2024)**
The Grove School of Engineering *New York, New York*
- Developed the front-end interface for a web application using ReactJS, CSS, and Flask.
- Collaborated with a team to enhance user experience and optimize performance.
- Assisted in promoting the program to increase user adoption in the future.

PROJECTS

Simply Manage | *Tailwind CSS, Next.js, PostgreSQL, Prisma, Chart.js, Typescript, Next.js, APIs* **(June 2025 - Present | In Progress)**
- Designed and built a responsive **full-stack dashboard** application using **Next.js** and **TypeScript** in an **Agile development** setting.
- Customized and extended a modular React-based UI to support inventory tracking, using **Tailwind CSS** for scalable, utility-first styling.
- Implemented **CRUD functionality** for managing stock levels, user roles, and task records with **Prisma ORM** and a **PostgreSQL** backend.
- Developed and consumed **RESTful API routes** for server-side logic, ensuring robust data validation and seamless UI interaction.
- Integrated **Chart.js** to visualize inventory trends, task frequency, and low-stock alerts, enabling data-driven oversight.
- Added secure **authentication** and **role-based authorization** to protect sensitive operations and allow administrative privileges.
- Followed best practices for **code quality** with **ESLint** and **Prettier**, and maintained version control with **Git and GitHub**.

Project Link: https://github.com/ChaoHong1944/simply_manage

Property Intel | *CSS, JavaScript, Python, ReactJS, Supabase, Flask, Google Maps API* **(September 2024 - December 2024)**
- Built and deployed a **CRUD-enabled** real estate dashboard that queries NYC housing violations through a custom **RESTful API**.
- Implemented secure **OAuth-based authentication** (Google, Facebook, Discord).
- Integrated **Google Maps API** for geolocation display and interactive map markers.
- Fully deployed via **Vercel**.
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Project Link: https://github.com/MChaudhry9/PropertyIntel-A-Real-Estate-App

NYC House Price Prediction | *Python, Pandas, Keras, TensorFlow, Scikit-learn, Seaborn* **(November 2024 - December 2024)**
- Developed a machine learning model to predict NYC housing prices using a Kaggle real estate dataset
- Engineered features and applied data preprocessing techniques, including natural log transformation, outlier filtering, and MinMax scaling
- Developed and trained a multi-layer neural network with dropout regularization achieving ~4.5% average prediction error
- Visualized model performance with error distributions and prediction vs. actual plots using Seaborn and Matplotlib
- Compared performance of neural networks against linear regression to validate model accuracy and generalization