Johnson Chen

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EDUCATION

The City College of New York | Grove School of Engineering **New York, NY**
Bachelor of Science in Computer Science | GPA: 3.47/4.0 **May 2025**
Relevant Coursework: Data Structures, Discrete Math Structures, OS, Probability and Statistics, Database Systems, Data Visualization, Paradigms, Machine Learning, AI, Web Design

EXPERIENCES

VSSportsGaming New York, NY
Web Developer Sep. 2024 – Dec. 2024

- Collaborated with a teammate to develop and deploy a multi-page website using HTML, CSS, JavaScript, and Bootstrap, hosted on Hostinger with a custom domain.
- Delivered the project within a 4-month deadline before the business's grand opening, achieving 100% client satisfaction.
- Maintained 99.9% uptime post-deployment, attracted over 300 unique visitors within the first few months, and launched the site with zero critical bugs.

IT Services LLC New York, NY
Web Development Intern Jul. 2022 – Aug. 2022

- Contributed in an 8-person team to enhance the company's landing page by implementing user authentication features and improving front-end design and functionality using HTML, CSS, and JavaScript.
- Implemented backend features using Node.js to handle newsletter signups, contact form submissions with email notifications, and cookie acknowledgment, with all user data stored in MongoDB.
- Organized and carefully managed the transfer of over 400 files from a local computer to the remote production server using FileZilla, ensuring 100% accuracy and data integrity throughout deployment.

PROJECTS

Pothole-Detection (*Python, OpenCV, Ultralytics, Gradio, Matplotlib, Pandas*) Feb. 2025 - Apr. 2025

- Built and trained a custom YOLOv8 object detection model to detect and classify potholes by severity levels, with a steady upward trend in mean Average Precision (mAP), achieving mAP@0.5 of 0.49 and 0.29 mAP@0.5:0.95 over 50 epochs, alongside a reduction in training loss from 1.6 to 0.9.
- Parsed XML annotations and preprocessed 700+ labeled road images into YOLO-compatible format for model training.

Weather-Image-Classification (*Python, TensorFlow, Flask, Matplotlib, Seaborn, Scikit-Learn*) Sep. 2024 - Dec. 2024

- Developed and trained Convolutional Neural Network (CNN) models to classify 11 weather phenomena from 6,800+ images, achieving 81% accuracy with ResNet50 and 78% with MobileNet.
- Designed a lightweight Flask web app to allow users to upload an image and receive real-time classification results with confidence scores.

MangaVision (*Python, NumPy, Matplotlib, Ultralytics, FastAPI, HTML*) Feb. 2024 - Dec. 2024

- Collaborated with a team of 4 to create MangaVision, a Python-based model platform enhancing manga accessibility for visually impaired users by analyzing manga panels.
- Engineered a YOLOv8 model to detect manga panels, speech bubbles, and character faces/bodies, and developed a custom panel-sorting algorithm adapted to manga layouts to preserve the correct narrative reading order.
- Integrated Manga-OCR to extract Japanese text from speech bubbles and generated structured transcripts by associating characters with bubbles using relative positioning, served in real time via a FastAPI backend and lightweight HTML frontend.

Recipe-Revive (*React, Next.js, Vercel, Agile, Tailwind CSS, JavaScript, Firebase*) Aug. 2023 - Dec. 2023

- Coordinated as a team of 6 to design and build Recipe-Revive, a web app for discovering and viewing recipes, while conducting in-depth code reviews to maintain code quality and adherence to project standards.
- Applied Agile methodologies (weekly stand-ups, code review cycles), resulting in a 40% increase in team engagement and smoother development workflows.

SKILLS

Languages: HTML, CSS, JavaScript, Python, C++, SQL, Java
Frameworks/Libraries: React, Node.js, Express.js, Next.js, Bootstrap, Processing, JQuery, Matplotlib, Tensorflow, Flask, Sklearn
Tools: Visual Studio, VS Code, MongoDB, Git, Github, npm
Technologies: MongoDB, Firebase, API, Vercel