

JEFFREY HUANG

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EDUCATION

SUNY Binghamton

Aug 2022 – May 2025

Bachelor of Science in Computer Science — GPA: 3.66

Vestal, NY

- **Dean's List:** Fall 2022 – Spring 2025
- **Relevant Coursework:** Data Structures & Algorithms, Advanced Machine Learning, High Performance Computing, Software Development, Web Programming, Operating Systems, Computer Architecture, Statistics, Linear Algebra

PROJECTS

Parallel k-NN Search Algorithm [↗](#)

C++, Parallel Processing

- Implemented parallel k-nearest neighbors search using k-d trees, achieving **5x speedup** on datasets with 100K+ points through dynamic task scheduling with a custom thread pool.
- Optimized cache locality and reduced synchronization overhead between worker threads.

Real-time Gesture Recognition System [↗](#)

Python, OpenCV, TensorFlow

- Developed a CNN model with **97% accuracy** for classifying hand gestures using MediaPipe for landmark detection.
- Engineered data pipelines to process 10K+ 3D coordinate points and deployed real-time inference with OpenCV.

Insurance Premium Prediction (Kaggle Top 20%) [↗](#)

EDA, Ensemble Learning

- Designed stacked ensemble (XGBoost, LightGBM, CatBoost) with Optuna hyperparameter tuning.
- Applied PCA and RFE for feature selection, improving model robustness by 15% over baseline.

Group Ordering Platform UI/UX

Figma, Product Design

- Created high-fidelity prototypes for a B2B bulk purchasing app; semi-finalist in university competition.
- Conducted user research and iterative testing to optimize workflow efficiency.

EXPERIENCE

Neverlasting | Cofounder, Full-Stack Developer

Apr 2024 – Present

- Building an ephemeral social app (React Native, Firebase) that matches strangers for one-time, in-person conversations, prioritizing privacy (auto-deleted data) and artistic integrity.
- Lead full-stack development, audio recording integration, and safety features (verified meetups, SOS alerts). Experiment with human-centered design: zero persistent profiles, no chat, forced real-world interaction.

About Time Coffee | Barista

Apr 2023 – Aug 2023

- Managed high-volume operations, processing 150+ daily orders. Analyzed sales patterns to optimize inventory, contributing to 30% increase in repeat business. Trained 3 new employees on POS systems and specialty brewing.

New York Black Belt Center | Taekwondo Mentor

Jan 2017 – Sep 2018

- Instructed 20+ students weekly in Taekwondo techniques and mental discipline. Developed personalized training plans for students aged 7-45 with varying skill levels.

LEADERSHIP

Binghamton ICW | Secretary

Aug 2023 – Apr 2025

- Coordinated events for 60+ weekly attendees, managing \$150 budgets and vendor relations.
- Implemented new executive onboarding system, increasing retention by 20%.

Stuyvesant Key Club | Vice President

Apr 2020 – Apr 2021

- Led 300+ members in community service initiatives, organizing 15K+ volunteer hours during pandemic.
- Spearheaded fundraising campaigns that generated \$8,000+ for local nonprofit organizations.

TECHNICAL SKILLS

Languages: Python, C/C++, Java, CUDA, JavaScript/TypeScript, SQL, HTML/CSS, R

Frameworks: React, Svelte, Flask, Node.js, TensorFlow, Keras

Tools: Git, MongoDB, Android Studio, Figma

Data Science: Pandas, NumPy, Scikit-learn, OpenCV, Optuna, Dimensionality Reduction

Other: Parallel Programming, API Development, Web Scraping, CI/CD