

Trang Bao Phuong Nguyen

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EDUCATION

Georgia State University - *B.S. in Computer Science, B.S in Mathematics*

Expected May 2029

Relevant Courses: OOP, Calculus II, Linear Algebra, Discrete Math

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, HTML/CSS

Frameworks/Libraries: FastAPI, Next.js, React, NumPy, Pandas, Matplotlib, scikit-learn,

Tools & Platform: Supabase, Git, Excel

GPA: 4.18

EXPERIENCE

Student Assistant, International Undergraduate Admissions | Georgia State University February 2026 - Present

- Respond to **40+ international applicant emails** weekly on admissions and document requirements
- Verify applicant records, processing **~15 transcript checks** biweekly
- Convert **20+ international transcript** to U.S. equivalents for consistent evaluation
- Review transcripts and test scores to ensure application completeness

PROJECTS

SequenceFM - [Github](#) | Python March 2026 - May 2026

- Formulate a **system mapping music features** (energy, valence, rhythm, diversity) into DNA-like structures
- Engineered **feature encoding** using Spotify audio metrics (tempo, danceability, etc.)
- Modeled “genetic recombination” to generate new music profiles from user-selected tracks
- Construct **interactive UI** concepts for visualizing and combining music “DNA strands”
- Developed prototype architecture for **scalable data processing and recommendation logic**

ListenBrainz (Open Source Contribution) | React, TypeScript March 2026

- Implemented **conditional UI logic** to display album listen counts when sorting by popularity
- Traced data flow across components to modify rendering without affecting existing behavior
- Verified functionality through **unit tests** and ensured **consistency** across sorting modes

LibroRank - [Github](#) | [Demo](#) | Python, NumPy, TypeScript January 2026 - February 2026

- Built a book recommendation system with a **CSV pipeline, FastAPI backend, and Next.js frontend**
- Implemented **schema mapping, data cleaning, normalization, and recency-based** ranking features
- Developed **weighted scoring** and **stochastic exploration** to improve recommendation diversity
- Designed a modular, test-covered architecture across pipeline, API, and UI

Breast Cancer Classification - [Github](#) | Python, scikit-learn December 2025

- Built ML pipeline to classify tumors (benign vs malignant) using WDBC dataset
- Preprocessed data with **scaling, encoding, and train/test split**
- Trained Logistic Regression model with probability-based predictions
- Achieved **~96% accuracy and ~93% recall** for malignant cases

AP Capstone - [AP Capstone Papers](#) | Discovery High School May 2025

- Collected and analyzed stress survey data from 70 AP students using Excel
- Conducted **2-sample t-test** comparing **PSS scores** across AP categories
- Rejected null hypothesis, confirming a **statistically significant difference** between STEM and Humanities stress levels.
- Wrote and successfully defended a **5,000-word dissertation** within nine months.