Brandon T. Pae

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EDUCATION

Columbia University - *GPA: 4.01* New York, NY | May 2026

Bachelor of Science, Major in Computer Science & Minor in Entrepreneurship

- Relevant Coursework - Advanced Programming in C, Artificial Intelligence, Data Structures in Java, Discrete Math, Linear Algebra, Multivariable Calculus, UI Design

Horace Mann High School - *GPA: 3.97 UW, 4.48 W* Bronx, NY | Jun 2022

- Relevant Test Scores - SAT: 1570, SAT 2 Math II: 800, AP Calculus BC: 5

WORK EXPERIENCE

Artaic, *Software Engineering Intern* New York, NY | Feb 2023 – Dec 2023

- Implemented a YOLO classification model to identify tiles by color and texture for Artaic's mosaics. Collected and annotated tile images using Roboflow
- Created an interactive map of Artaic's mosaic installations using the Google Maps API and WP Go Maps. Debugged errors in Artaic's web server and researched mosaic information for their database

Capco, *Software Engineering Intern* New York, NY | Jun 2023 – Aug 2023

- Improved the backend code for Commerce Bank's website; debugged their RESTful APIs for the user permissions service and created JSON test payloads for admin approval items, using their APIs and Db2 SQL
- Wrote a Python script to automate the test data creation process and presented it to 30+ senior executives and developers in Capco and Commerce
- Implemented k-means clustering to group users for the stock recommendation project. Also fixed JSON errors to enable API calls between Adobe Marketo and OneTrust for the consent & preference project

Arrow Electronics, *Machine Learning Intern* Cambridge, MA & Remote | Aug 2021 – Aug 2022

- Implemented eight machine learning (ML) models with AWS to forecast the price of raw minerals needed for electronics. Ran over 200 experiments and analyzed the results using Optuna and ClearML
- Developed four ML models to predict the end life of electronics parts. Optimized the best model using Talos and presented results to 20+ executives and salespeople in Arrow. Increased the accuracy of their predictive products, improving customer experience and sales

EXTRACURRICULAR ACTIVITIES

Columbia Daily Spectator (CDS), *Head of Product* New York, NY | Sep 2022 – Present

- Ideated and designed new features for Spectator's products, primarily CULPA (Columbia's website for rating professors and courses). Used Figma to design the flow for uploading syllabi and filtering reviews by tags

Columbia Organization of Rising Entrepreneurs, *Almaworks Mentorship Lead* New York, NY | Sep 2022 – Present

- Met with 12 student founders to identify the best growth strategies for their companies; connected them with mentors each week in the Columbia Startup Lab (CSL). Also created Python scripts to automate mentor scheduling logistics

Columbia University Robotics Club, *Pacbot Software Member* New York, NY | Jan 2024 – Present

- Fine-tuned the heuristics for the A* pathfinding algorithm and implemented state representation for Q-learning

PROJECTS

- **Secra**: Developed an alternative for when2meet to improve group scheduling for college students, using GPT-4 and Google Calendar API. Successfully completed the LionLaunch Incubator and Columbia Start Me Up Bootcamp
- **LeetCode Helper**: Created a browser extension to provide AI-generated hints for LeetCode problems

SKILLS AND INTERESTS

Programming Languages: Coding Languages: Python, Java, R, Scala, C, C++, SQL, JS, CSS, HTML, PHP
Libraries and Tools: AWS, PyTorch, Tensorflow, React, React Native, Flask, mySQL, Supabase
Design Tools: Fusion 360, Onshape, Figma, Illustrator
Interests: Tennis, Weightlifting, Video Games, Drawing, Korean Dramas