

Xinyang(Tommy) Cheng

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EDUCATION

Boston University

Boston, MA

B.A. in Computer Science (cumulative GPA: 4.000/4.000)

September 2022 – May 2024

B.A. in Applied Mathematics (cumulative GPA: 3.950/4.000)

Courseworks: Computer Systems, Software Engineering, Multivariate Calculus, Geometric Algorithms, Probability, Combinatoric Structures, Applied Abstract Algebra, Linear Algebra, Calculus II, Calculus I

Organizations: BU Chinese Students & Scholars Association, BU IT Help Center, BU Upsilon Pi Epsilon

PROFESSIONAL EXPERIENCE

NeuroMesh Foundation

London, UK

Full-stack Developer (remote)

May 2024 – present

- Assisted in the front-end development of the business website using Next.js, with more than 100 commits contributed.
- Added and upgraded website features for user interface and loading speed.
- Actively joined weekly standup on Zoom and made reports on the project progress.

Radical AI

New York, US

Software Developer & AI Engineer (remote)

October 2023 – May 2024

- Assisted in the development of the business website at the software development team.
- Actively collaborated on launched projects at the AI team, attended meetings on Gather.
- Contacted teammates and leads on Slack for troubleshooting and plan making.

GEC Academy

Shanghai, CN

Research Project Coordinator

July 2023 – August 2023

- Led a group of 21 students with Professor Patrick Rebeschini; guided students to produce 8-page research papers in a 1-month program with 2 weeks remotely and 2 weeks on-site.
- Prepared lessons with 80-slide PowerPoints, in-class written questions, and pop-quizzes during Office Hours.

TECHNICAL SKILLS

- Programming Languages:** Python, Java, C++, HTML, JavaScript, CSS, x86-64 Assembly, C, TypeScript
- Libraries/Framework:** NumPy, Pandas, Matplotlib, Scikit-learn, TensorFlow, Langchain, Chroma; React, Streamlit, Flask, Next.js, Django
- Dev/AI Tools:** GitHub, Visual Studio Code, Figma, Jupyter Notebook, Spyder, Google Cloud Platform, Google Colab

PROJECTS / OPEN-SOURCE

Gemini Quizify | https://github.com/TommyCheng023/Gemini_Quizify *Streamlit, Langchain, Chroma, VertexAI, Python*

- Finished an AI-generated quiz tool project focused on providing students and learners with accessible and effective means to reinforce their understanding of various topics; with a demo included.
- Created approximately 20 commits; contributed more than 300 lines of code; made a 54-minute video report on Loom

Predict HD | https://colab.research.google.com/drive/1PDiN6mj_dhcXUpeL9UtYSIYLIVbsDIKh?usp=sharing *Python*

- Analyzed given data and features and found correlations of each feature to the target.
- Compared and chose Logistic Regression as the final model for training and testing with a raw score of 88%.
- Evaluated the trained model and tuned hyperparameters in order to improve the trained model.

Dog Vision | <https://drive.google.com/file/d/1-Pv26V1pKGmP6jK5MoTcnvjaH0Qc99PC/view?usp=sharing> *Python*

- Preprocessed dog images using TensorFlow and made data batches for model training.
- Trained, tested and saved a Deep Learning model solving Dog Breed Identification by transfer learning MobileNet_v2.
- Visualized how the trained model performs on testing images using Matplotlib.

Bulldozer | <https://colab.research.google.com/drive/19jarGCKd2MMsVEhkFTLYDraYiVsIqZRh?usp=sharing> *Python*

- Preprocessed the raw dataset (parsed dates, filled empty units, converted strings to categories, sorted by time).
- Selected RandomForestRegressor, trained and tested the model predicting the sale price of different bulldozers.
- Analyzed the raw output, improved the model performance by tuning hyperparameters and finding feature importance.

BU CSSA Application Portal | <https://application-portal.bucssa.org/>

Flask, Python

- Built a website that students can submit application to BUCSSA with their resumes and register relative activities.
- Created 15 commits on average to the project every month; contributed over 300 lines of code in total.
- Handled over 300 users; reached more than 67000 visits and 2811 transactions per minute at maximum.