Angel (Leyi) Cui

(332) 323-4897 | lc3542@barnard.edu | leyicui-angel.github.io

EDUCATION

Barnard College, Columbia University ***New York, NY***

Bachelor of Arts; Major in Computer Science; Minor in Statistics, Dance *Expected May 2024*

- GPA: 3.61; Major GPA: 3.80
- Relevant Courses: Advanced Programming, Data Structures, Computer Science Theory, Fundamentals of Computer Systems, Applied Statistical Computing in R, Calculus-based Statistics, Discrete Mathematics, Linear Algebra

WORK EXPERIENCES

Healthy FreeG ***New York, NY***

Team Leader, Product Manager, Software Engineer *April 2022*

- Awarded Best Design Prize in DevFest '22 at Columbia University
- Coordinated the efforts among group members under an Agile framework
- Designed backend APIs; MySQL, PostgreSQL, SQLite databases; and developed Flask microservices
- Built the IOS application frontend using React.js, and the GUI application frontend using Tkinter

ByteDance Ltd. ***Beijing, China***

Game Designer & Planner *Oct 2020 – May 2021*

- Sole designer for Hui Su Sha Tang, a Chinese-themed music game with 545k views, 41k downloads, and rating of 8.1/10.0
- Designed Mahjong Puzzle Game on Chinese TikTok with 400k daily active users and average retention of 50%+
- Planned 100+ proposals covering system plannings, scripts, mathematical plannings, etc

Apple Inc. ***Jiangmen, China***

Apple Teacher for programming and music *Jun 2021 – Aug 2021*

- Certificated as Apple Teacher for K-12 education
- Taught 50+ kids computer programming and music in rural areas to promote education equality

RESEARCH PROJECTS

Advancing the Usability of Temporal Stream Logic *May 2022 – Present*

- Working under Prof. Mark Santolucito in Barnard Programming Language Lab
- Funded by SRI (Summer Research Institute) and NSF (National Science Foundation)
- Focused on making temporal stream logic (TSL), a logic specification language, more usable by working on writing logic, designing user interfaces, doing user studies, and optimizing TSL-generated code

False Memory Influencing Factors *Oct 2021 – Jun 2022*

- Worked under Prof. Lisa Son in the Psychology Department at Barnard College of Columbia University
- Performed data organization and analysis using Python (Pandas & Numpy) and R on more than 100,000 rows of psychology experiments' plain English text and numeric row data on false memory
- Conducted statistical analysis such as linear regression test, chi-square test, and comparison of means t-test

On the Two-dimensional Resilient Consensus *Jan 2019 – Oct 2022*

- Worked under Prof. Ji Liu from Stony Brook University
- Paper published at 2019 IEEE 7th International Conference on Computer Science and Network Technology (ICCSNT2019); gave a paper presentation at the in-person conference at Dalian, China
- Proposed two-dimension MSR algorithm, one possible approach to tackle the two-dimensional resilient consensus problem.

Smart BMS to reduce emissions in MIT buildings *Oct 2018 – Dec 2018*

- Awarded MIT Energy Hackathon third place; MIT Hack task winner.
- Performed Machine Learning on the input-output relationship describing the state transitions in the building; built Reinforcement Learning based BMS as a control strategy.
- Later adapted the solution to Guangzhou Foreign Language School FAROL Robotics Lab. Output a 20-page report for Google Science Fair.

SKILLS

Languages: Java, Python, C++, C, HTML/CSS/JS, SQL, R
Frameworks/Libraries: Flask, Django, React, PostgreSQL, MySQL, SQLite, TensorFlow, Pandas, NumPy, OpenCV, Tkinter
Tools: Linux, Git, Unity, Figma, Adobe Premier, GarageBand
Clubs: Columbia Application Development Initiative; Barnard Better, Enhance, and Advance Research Series in Computer Science; Columbia University Ballet Ensemble (CUBE); Barnard & Columbia Chorus
Achievements: Dean's List (Fall 2020, Fall 2021, Spring 2022); 2019 CRC (FRC) Robotics Competition National 2nd place; 2020 Byte Camp game design winner; Screenwriter of comic "The Female Prince Consort" adapted from Huangmei Opera