Louis Zhao

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EDUCATION

Columbia University in the City of New York   New York, NY
Master of Science in Biomedical Engineering, Specialization: Neuro Engineering   *Expected Dec. 2024*

Columbia University in the City of New York   New York, NY
Bachelor of Science in Computer Science; GPA: 3.74   *Sep. 2021 – May. 2023*
Courses: *Programming in Java, Data Structures and the Fundamentals of Computing, Linear Algebra, Discrete Math, Web App Development, Operating Systems, Advanced Programming, Fundamentals of Computer Systems, Computer Networks, Introduction to Databases, User Interface Design, Programming Language and Translators, Natural Language Processing, Computer Vision and Artificial Intelligence*

Brandeis University   Waltham, MA
Bachelor of Arts in Computer Science   *Aug. 2018 – May. 2021*

EXPERIENCE

Columbia University Research Computing Services Lab   New York, NY
Research Assistant, supervised by Professor Junfeng Yang and Doctor Yaniv David   *Jan 2023 - May 2023*

- **Research Skills and Open Source Contributions**: Investigated and optimized Python open-source projects' dependency upgrades problem using problem-solving techniques and research methodologies. Enhanced Upgradvisor system through Python programming, implementing visualizations and contributing 3 Pull Requests to open-source projects. Proficient in code contribution, collaboration, and leveraging open-source resources.
- **Data Analysis and Automation**: Automated data processing and analysis using Python to extract valuable insights from the Upgradvisor system's output. Generated CSV tables of Pull Requests for supervisor review. Proficient in data analysis, scripting, and creating efficient workflows that reduced the time consumption by 90%.

echo3D   New York, NY
Software Engineering Intern   *May 2022 - Aug 2022*

- **Web Development**: Developed a web-based augmented reality (AR) game using JavaScript, Python, A-Frame, and Three.js. Made the game load faster by 30% and reduced the amount of space it requires by 70% compared to traditional game development. Created over 10 interactive features, making the game more enjoyable to play.
- **iOS Development**: Built an AR app for iOS using Unity and C#. Used the echo3D API to create an educational app that allows users to visualize and explore neuroscience models like the brain and spinal cord for learning purposes.
- **Collaboration and Communication**: Worked closely with the Engineering team at echo3D, participating in weekly meetings to share progress updates. Collaborated effectively with the team to incorporate feedback and prioritize new features for the product.

Changing Room   New York, NY
Software Engineering Intern   *May 2022 - Aug 2022*

- **Chrome Extension**: Supported the maintenance of a Chrome Extension using user-friendly technologies like Svelte framework, JavaScript, and Python. Implemented 5+ new features to enhance user experience, such as displaying overall ratings and recommendations when visiting unsupported brand websites. Achieved a 40% faster loading time for improved performance.
- **Web Development**: Contributed to website enhancements using Python, JavaScript, and PostgreSQL. Implemented 10+ new features, fixed over 20 bugs, and reduced computing time by 30%. Improved documentation and comments to make the code easier to understand and maintain.
- **Agile Development**: Contributed to the ongoing improvement of the product by consistently delivering new features based on user requests. Implemented an average of 2 new features per week, ensuring that the product met the evolving needs and preferences of its users. Adapted to changing requirements and effectively worked within an iterative development approach.

SKILLS

- **Programming Languages**: Python, Java, SQL, HTML/CSS/Javascript (Web Development), Ruby, C
- **Technical Skills**: Research, Database Management, Microsoft Office, Data Analysis, Project Management