Kristopher Luo

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Experience

Epic **July 2023 – Present**

Software Engineer *Madison, WI*

- Proposed and implemented a customizable macro shortcuts feature for nurse documentation using **C#** and **TypeScript**, cutting workflow time by **93%** while enhancing documentation accuracy
- Developed an auto-population feature for the IRF-PAI form using **M**, saving nurses over **8,000** clicks per month
- Built reporting dashboards with **SQL** and **M**, delivering live performance metrics to over **200** healthcare organizations
- Reviewed over **200** peer projects and designs, providing feedback and ensuring quality standards
- Investigated and fixed over **50** diverse Quality Assurance Notes, enhancing system reliability

Moody's **June 2022 – August 2022**

Software Engineering Intern *Remote*

- Engineered a proxy server infrastructure with **500+** proxy servers to store data from external **API** calls for **performance testing** and **data validation**, ensuring high reliability and scalability of products
- Developed over **150 Python integration** and **unit tests** for Moody's big data rating application for **30,000+** issuers
- Contributed to the design, implementation, and testing of a **RESTful service** infrastructure application

Giant Oak **January 2022 – May 2022**

Natural Language Processing Researcher *Remote*

- Integrated **BERT** into NER pipeline for improved context capture, improving accuracy by **6.86%**
- Proposed and implemented a translation step using **GPT-3**, enhancing NER accuracy for languages with less advanced models like Chinese by **3.2%**, while optimizing performance and training costs
- Implemented a **data augmentation** step, leveraging **synthetic data generation** and **text perturbation** techniques to boost **ML** training batch size by over **200%**, enhancing model robustness and generalization

Clemson University, Department of Computer Science **May 2021 – August 2021**

Machine Learning Researcher *Clemson, SC*

- Investigated various **DeepFake detection** methods, such as observing inconsistent corneal specular highlights, facial attribute inconsistencies, and temporal anomalies, to enhance detection accuracy and robustness
- Implemented and evaluated deep learning techniques, such as **convolutional neural networks** and **recurrent neural networks**, to improve the performance and reliability of Deepfake detection models

Education

Clemson University **August 2019 – May 2023**

B.S. in Computer Science, Minor in Business Management *Clemson, SC*

- Honors College | President's List | **4.0 GPA**
- **Relevant Coursework**: Algorithms & Data Structures, Applied Data Science, Cloud Computing, Operating Systems, Software Development, Network Programming, Discrete Structures, 2D Game Engine Design, Programming Systems

Projects

Personal Portfolio | *JavaScript, HTML, CSS, React*

- Coded a personal portfolio website showcasing my background, skills, and professional projects.
- Link to website: www.kristopherluo.com

Gravity Runner | *C++, SDL2*

- Developed a 2D game where players control a character capable of reversing gravity to avoid all obstacles
- Designed and implemented sprite animations, menus, and game difficulty progression
- https://github.com/kristopherluo/GravityRunner

Additional Information

Skills: C++, C, C#, Python, Java, JavaScript, M, TypeScript, SQL, Git
Interests: Soccer, Working out, Chess, Piano, EDM, Delta Chi Fraternity