Kyle Zheng

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Education

Purdue University, *West Lafayette, IN*   *May 2023*

- Bachelor of Science in Computer Science   GPA: 3.73/4.00

Experience

Tulip - *Software Engineer Intern*   *May 2022 - Aug 2022*

- Owned and delivered rich text editing feature, improving customer ability to style multilingual text (React)
- Migrated multilingual text data to rich text format while minimizing developer disruption (MongoDB)
- Refactored and created new UI elements, focusing on accessibility and improvements in core user paths

LifeOmic - *Software Engineer Intern*   *May 2021 - Aug 2021*

- Worked with team to design and implement payment transactions feature
- Created and presented interface (React) for transactions management and history to stakeholders
- Ensured code quality and stability by writing unit tests and end-to-end UI tests (Jest, Cypress)
- Prototyped transaction data visualizations to improve customer spending visibility

Purdue Cognition and Learning Laboratory - *Web Programmer*   *May 2020 - May 2023*

- Developed custom programs and online experiments for psychology researchers (Javascript)
- Manage experiment data using jsPsych, MongoDB, Node.js
- Continuous updating and migrating legacy Angular/Express app before rewrite to Nextjs, Typescript
- Redesigned API endpoints, fix security flaws, add tests, and maintain compatibility to allow soft transition

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Projects

qrframe - *QR code generator*   *qrframe.kylezhe.ng*

- Implemented QR code generator library from scratch in Rust with SVG output
- Imported as WASM in frontend to enable generating QR codes in real time as parameters change
- Learned about Reed-Solomon error correction and finite field arithmetic

pixelgame - *Online tic-tac-toe game*   *pixelgame.kylezhe.ng*

- Interactive multiplayer game built with Elixir, Phoenix web framework
- Lobby system with join links, custom game rules and player markers
- Implemented bots with game playing algorithms such as minimax

review-app - *Movie review terminal app*   *ssh reviews.kylezhe.ng*

- Terminal app built using Go, Bubbletea framework accessible over ssh
- Server built using Rust, Actix Web framework, Postgresql to search for movies and store reviews
- Public API used to show latest reviews on my personal website