

Yuke Zheng

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GitHub: github.com/yzheng1998 Portfolio: www.yukezheng.com

Education

HARVARD UNIVERSITY

Cambridge, MA

A.B. in Computer Science; History of Art and Architecture – GPA: 3.89/4.0

May 2021

Relevant Coursework: Data Structures & Algorithms, AI, Functional Programming, Statistics, Data Science

Technical Background

Programming Languages: JavaScript, Python, C/C++, Java

Skills: React, HTML5/CSS3, Redux, Firebase, D3, Mapbox, Node.js, Data Science, Machine Learning

Experience

City Science Research Group—MIT Media Lab

Cambridge, MA

Front-End Engineer and Researcher (JavaScript)

January 2020 – Present

- Designed and coded several React and Deck.gl-based features for CityScope.js, including a traffic simulator, a land-use drawing tool, and a feature to save and load drawing-canvas states
- Migrated front-end code from VanillaJS to React with functional components, improving code stability, readability and extendibility

Arcturus International

(Virtual) Somerville, MA

Front-End Software Engineer Intern (JavaScript/TypeScript)

June 2020 – August 2020

- Designed advanced mapping visualizations for a React PWA that allows users to visualize spatial crime analytics in real time, including a cluster map and a scatterplot time-lapse
- Developed an algorithm in Python for finding the safest path between any two locations using crime data and Dijkstra's Algorithm, and implemented the front-end interface
- Improved app interactivity and animation speed by 10x by migrating front-end code to Deck.gl

Civic Data Design Lab

Cambridge, MA

Front-End Engineer and Researcher (JavaScript, Python)

January 2020 – August 2020

- Collected and analyzed data from 7 tourism websites/APIs to predict relative tourism levels by neighborhood in Venice in a Harvard/MIT-funded study on the impacts of tourism on urban life
- Developed an interactive data visualization tool using React, Deck.gl and Mapbox for visualizing demographic and urban trends in Venice, pending publication in several leading urban magazines

Give Essential

(Virtual) Cambridge, MA

Full-Stack Software Engineer (JavaScript)

May 2020 – June 2020

- Designed and developed a NoSQL backend using Cloud Firestore, Express, and Node.js to manage user accounts and donation requests/submissions
- Wrote an efficient matching algorithm to match donors with essential workers based on user selections, which has matched over 5,000 donations
- Built the front-end of the website using React and Styled-Components

Harvard Student Agencies DEV

Cambridge, MA

Project Manager & Lead Front-End Software Engineer (JavaScript)

January 2018 – May 2019

- Developed 4 web/mobile apps using Node.js, React.js, Express, HTML5/CSS3, Webpack, and other developer tools
- Managed and mentored a team of 5 engineers and 1 designer on projects using agile methodology, leading projects that generated over \$50,000 in revenue
- Spearheaded company-wide unit, integration, and end-to-end testing initiatives using Jest

Interests: Travel, Architecture, Cities, Chinese Culture, Economics, Philosophy, Sustainability