SOPHIA ZHENG

Software Engineer

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Highlights

- Proficient development experience with web development with TypeScript, HTML, CSS, Git, ReactJS and Angular
- In-depth understanding of Data Structure, Algorithms and OOP principles
- Excellent communication skills and great team player
- Quick learner with strong self-motivation and enthusiastic individual handling multiple tasks

Work Experience

Software Engineer | Workday
2021.11 – Present

- Drove adoption of Storybook and Cypress that enhance engineer experience and provide better UI testing strategy for video player.
- Implemented new features, fixed issues and improved performance for video player with ReactJS and Typescript.
- Improved, tested and documented adoption of videoJS and HLS for Adaptive Bitrate Streaming via different browsers and platforms.
- Created Cloudflare CDN worker to fetch media contents from the AWS S3 and enabled Adaptive Bitrate Streaming that reduced video stalls by 97% and reduced video manual quality change by 84%.
- Collected and visualized metrics on Nimbus & Wavefront dashboard to monitor application performance and trigger alerts if the error rate goes beyond certain thresholds.

Software Developer | IBM
2019.9 - 2021.10

- Implemented new features for IBM Sterling Business Transaction Intelligence Tool in Supply Chain Network to provide easier access for customers to track orders and inventories.
- Organized and participated in cross-team projects alongside more than 6 software engineers, and performed knowledge sharing after projects is accomplished.
- Diagnosed and analyzed project construction issues and lead the team to resolve 12 code conflicts within 2 days.
- Supported the front-end for web applications with various technologies.

Software Developer Intern | IBM
2019.9 - 2021.10

- Worked in an Agile environment to develop and test applications.
- Implemented new features for Carbon Charts and Carbon Design System, provided unit tests and solved issues with D3.js and Vanilla JavaScript.
- Implemented and optimized WYSIWYG chart customization tool for non-developers that can be shared and self-synced in various ways with ReactJS.
- Migrated WYSIWYG web application from Angular to ReactJS with TypeScript.

CV Research Assistant | York University CV Centre
2018.5 - 2019.4

- Analyzed and tested Auto Camera Calibration with Manhattan Frame Estimation and Unsupervised Crowd Counting.
- Evaluated and compared state of art CV algorithms for specified datasets via Python and MATLAB.

Skills

- TypeScript (pro), Python (pro), Java (jr), Matlab (mid), HTML (pro), CSS (pro)
- ReactJS (pro), Angular (mid), D3.js (mid), NodeJS (mid), Git (pro), Storybook (pro), Cypress (pro), Redux (pro)
- Docker (jr), SQL (mid), Cloudflare(jr), Jira
- AWS: EC2(jr), S3(jr), Lambda(jr)

Education

- **B.Sc. Honors, Computer Science**
  York University (2016.1 - 2021.4)
- **Machine Learning Certificate**
  Stanford University via Coursera (2017)
- **Graphic Design Advanced Diploma**
  Seneca College (2014.1 - 2016.1)

Projects

RSME web Application

- A web application that auto-generate resume in PDF based on LinkedIn profile
- It gets user profile information with given binding permission from LinkedIn via LinkedIn RESTful API and OAuth2 and gets code contribution chart from GitHub with given username
- The project is written in Node.js and Express.js with various of Node.js libraries, including request, PDFKit, xpath, xmldom, mustache-express, etc.

Lane Detection

- An algorithm to recognize lane marks from images and videos without camera calibration
- It includes image color analysis, filtering, perspective transformation and sliding windows
- The dataset is chosen randomly without camera specification
- The project uses Python libraries including Matplotlib, OpenCV and NumPy