Wenqi He

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EDUCATION

B.S. Computer Science, Georgia Institute of Technology

Aug. 2015 - Dec. 2019

- Concentrations: Information Internetworks, Modeling and Simulation, Minor: Physics
- Graduated with Highest Honors (cumulative GPA: 3.97/4.0, major: 4.0/4.0, minor: 3.8/4.0)

EXPERIENCE

Software Engineer, Etude (etudereader.com), Atlanta

Sep. 2019 - Present

- Implemented multiple features for the **Electron**-based smart PDF reader, including persistent non-contiguous text high-lighting and table of contents parsing, which worked on 85% of user-uploaded PDF documents without bookmarks.
- Utilized **PDF.js** and applied **MVVM pattern** for the persistent highlighting feature.
- Fixed a race condition in the default PDF.js viewer between text layer rendering and background computations that caused some highlights to not render on large documents.

Front-end Engineer Intern, PegasusCRM, Atlanta

Jan. - May. 2018

- Worked on a new feature of the PHP web application that allows merchants to organize potential customers into lists.
- Reimplemented main features of jQuery DataTables plugin in Vue.js to allow for future custom needs.
- Used **Jira** to manage assigned tickets and **Confluence** to manage internal documentation.

SOFTWARE PROJECTS

Georgia Tech Midterm Course Survey System (Web Application)

Aug. - Nov. 2019

- Developed a full-stack web application for the Office of Academic Effectiveness at Georgia Tech that allows students to take surveys anonymously and lets instructors create/edit/close/delete surveys and view survey results.
- Used MongoDB to store survey templates and responses, and implemented a collection of Angular components to render survey forms dynamically based on template JSON fetched from the Express/Node.js back end.
- Integrated Georgia Tech Login Service (CAS) and Canvas LMS REST API to determine user type and enrollment status, and used **singleton Angular services** with **web storage** to manage user login state and data requests.
- Also used Puppeteer, Idapis, Salesforce Lightning Design System and D3.js.

MARTA Public Transport Management System (Web Application)

Sep. - Nov. 2018

- Developed a full-stack web application that lets MARTA passengers manage personal accounts, transactions and travel histories and lets administrators update station information and review overall traffic and revenues in a time period.
- Utilized MySQL, Sequelize ORM and Express/Node.js to build a REST API for the above functionalities.
- Used **Redux** with **React** and **React Router** to synchronize front-end application state such as login status and account balance with back end and across front-end routes/pages without making repeated network requests.
- Deployed the application on **Heroku** and ClearDB.

Online Python Console and Chat Room (Web Application)

May. 2018

- Developed an online Python console that spawns Python REPL subprocesses dynamically for user-specified channels and allows multiple users to access the same channel simultaneously to use it as a basic chat room.
- Utilized Node.js and Socket.IO to broadcast one user's input/output to all users on the same channel.

Server Port Multiplexer for Heroku

Jul. 2019

• Developed a system that allows multiple web servers on the same host to be accessed from a single port by translating between TCP port numbers and URL path prefixes using **service workers** and **Node.js**.

Lisp System in JavaScript

Oct. 2019

• Implemented Lisp's s-expressions, eval function and macros in JavaScript.

Mini Visual Studio Code (Electron Desktop Application)

May. 2018

• Developed a basic cross-platform desktop file explorer and text editor in **Electron** JavaScript framework.

Sitting Time Recorder (Mobile Application)

Jan. 2019

- Utilized **iOS** Core Motion and **Android** sensor framework to detect vertical movements (standing up/sitting down).
- Implemented a calendar heatmap in **D3.js** to display recorded daily sitting time.

TECHNICAL SKILLS

Proficient: Python, JavaScript/TypeScript, CSS/SCSS, HTML, Bash, Git, Vim

Familiar: C, Java, Node.js, Express, React, Angular, Vue.js, jQuery, RxJS, Redux, MySQL/SQL, MongoDB

Used: iOS (Objective-C, Swift), Android (Kotlin), Xamarin (C#), Flutter (Dart), Go/Golang, PHP