

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 highlighting and table of contents parsing, which worked on 85% of user-uploaded PDF documents without bookmarks.
- Utilized **PDF.js** to implement the features; detected and fixed a race condition in the default PDF.js viewer between text layer rendering and background computations that caused highlighting bugs on large documents.

Front-end Engineer Intern, PegasusCRM, Atlanta

Jan. – May. 2018

- Worked on a new feature of the Laravel application that allows merchants to organize their potential customers into lists.
- Reimplemented main features of **jQuery** DataTables plugin in **Vue.js** to allow for future customizations.
- 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 suite of **Angular components** to render survey forms dynamically based on the **JSON**-encoded survey template it receives from the back end.
- Integrated Georgia Tech Login Service (CAS) and Canvas LMS REST API to determine user type and enrollment status, and used **Angular services** with **Web Storage** to manage user login status and data requests.
- Used **Express/Node.js**, Puppeteer, Idapjs, Salesforce Lightning Design System and **D3.js**.

Public Transport Management System (Web Application, Course Project)

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**, **Express/Node.js**, Sequelize and **JWT** to build a REST API for the above functionalities.
- Created two implementations of the front end using **React/Redux/React Router** and **Vue/Vuex/Vue Router**.
- Deployed the application and database on **Heroku** and ClearDB.

Online Python Console for Chats and Video Interviews (Web Application)

May. 2018 – Aug. 2019

- Developed a web-based **Python** console that supports dynamic creation of public chat rooms and video interview channels, each with a dedicated REPL instance that runs user-submitted Python code.
- Used **Socket.IO** with **Node.js** to broadcast one user's messages to other users on the same channel, as well as providing the signaling service that enables the **WebRTC** video call feature.

Server Port Multiplexer/Demultiplexer

Jul. 2019

- Developed a system that allows multiple web servers running 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 a **Node.js** proxy.

Mini Visual Studio Code (Electron Application)

May. 2019

- Built a basic desktop file explorer and text editor with **Electron**, **React** and **styled-components**.

A Small JavaScript/HTML Parser

Mar. 2020

- Implemented a shift-reduce parser in JavaScript for a small subset of JavaScript and HTML.

JavaScript S-expression Evaluator

Nov. 2019

- Implemented s-expression, **eval** and a macro system in JavaScript based on McCarthy's original paper on LISP.

Sitting Time Recorder (Mobile Application)

Jan. 2019

- Utilized **iOS** Core Motion and **Android** sensor framework to detect vertical movements (standing up/sitting down).
- Used **Go** with **MySQL** to record user's daily sitting time and used **D3.js** with **SVG** to create calendar heatmaps.

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