THOMAS CHENG

SOFTWARE ENGINEERING STUDENT

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TECHNICAL SKILLS

Languages/Technologies JavaScript · React · Python · MongoDB · SQL · C/C++ · Redux · MobX · Swift · Java
Development Tools Visual Studio Code · Git · Xcode · Android Studio · Vim · Postman

WORK EXPERIENCE

Full Stack Developer
PiinPoint   Waterloo, ON / Sept 2020 - Dec 2020
- Overhauled **React** and **MongoDB/S3** web app to support uploading of multiple data sets to an account
- Utilized **Python** and **Django** to construct RESTful API calls and implement custom display options for generation of demographics reports
- Wrote **Python** scripts to update outdated **PostgresSQL** data by importing latest Spatial.ai CSV files
- Lead team meetings for coordinating the upgrade of customer accounts to support multi-data sets

Software Developer
MappedIn   Waterloo, ON / Jan 2020 - Apr 2020
- Prototyped multi-select feature using **React** and **MobX** to calculate combined sqft for leasing tool and presented implementation at company-wide showcase
- Created a demo website for sales team using **GatsbyJS**, **GraphQL**, and **Sass** to promote new leasing tool
- Improved the UI and UX of the proprietary content management system to streamline user workflow
- Reduced memory usage of the internal map editing tool when 3D rendering **three.js** scenes

Software Developer in Test
MappedIn   Waterloo, ON / May 2019 - Aug 2019
- Spearheaded UI revamp of iOS demo app in **Swift** and designed tests for native iOS development
- Overhauled **Appium** snapshot tests and fixed Jenkins CI test suite for iOS demo app
- Improved automated path generation on proprietary Android SDK by addressing technical debt
- Created GitHub repository wiki documentation troubleshooting known issues with the mobile SDK

PERSONAL PROJECTS

KPopify
- Used **React**, **Express.js**, **Node.js**, and **SQL** to create an online music player app with 4 other members
- Designed and implemented **React** and **Redux** navigation between the search page and playlist page
- Wrote **SQL** queries that returns the most popular songs and artists based on their frequency across all user playlists

Java Paint Program
- Constructed a **Java** paint program capable of drawing simple shapes using the javax.swing library
- Implemented custom built linked lists, stacks, and queues for undo and redo functionality
- Designed integration tests to simulate user input resulting in 100% code coverage

Vigènere Cipher Website
- Created an interactive website using **HTML** and **JavaScript** to showcase the Vigènere cipher
- Utilized DOM manipulation to present the encoded / decoded message to the user
- Revamped website styling from pure **CSS** to **BootStrap** for design appeal and mobile compatibility

EDUCATION

University of Waterloo   Waterloo, ON / 2018 - Present
- Candidate for Honours Bachelor of Software Engineering 2023