

# SHIRLEY XU

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## Skills

- Languages: Javascript ES6, Typescript, Python, Java, HTML/CSS/SASS, XML/XSLT
- Frameworks: React, Node, Express, Flask, Mongoose
- Databases: SQL, PostgreSQL, MySQL, MongoDB
- Libraries: JQuery, Bootstrap, Semantic UI
- Tools: Git, Linux, Docker, Webpack, JIRA, Confluence, IntelliJ, VisualStudio, Jupyter, Adobe Photoshop
- Other: Adobe Photoshop, Microsoft Office

## Projects

- D2S2: <https://amp.pharm.mssm.edu/d2s2/>, a bioinformatics application that generates gene signatures for drugs and diseases and data visualizations
- Textbook Rental App: <https://github.com/xshirl/textbookapp>, an ecommerce textbook store created using Javascript, Node, Express, EJS, PostgreSQL, HTML, CSS
- Blog App: <https://github.com/xshirl/blogApp>, a full stack blogging application created using Javascript, Node, Express, EJS, MongoDB, Mongoose, HTML, CSS, and Semantic UI

## Work Experience

### **Icahn School of Medicine at Mount Sinai, Bioinformatics Software Engineer** 06/19 - present

- Developed a full stack web application using Python, Flask, React, JQuery, Javascript, Webpack and Docker that generated gene signatures for drugs and diseases as well as data visualizations by calling the laboratory's various APIs
- Crawled through genomic databases and scraped websites using Python and BeautifulSoup to pull out genes and corresponding phenotypes/diseases/drugs to create GMT and JSON files from the data
- Created JSON schema using Javascript, TypeScript, and Bash that adhered to DATS Schema model using JSON data from multiple databases for NIH Common Fund using Python and Bash scripting
- Analyzed frequencies of NIH grants that support Pubmed articles that cite the lab's most popular tool Enrichr and plotted the highest referenced NIH institutes using Python, Matplotlib, and Pubmed API
- Designed and developed a full stack website containing information on the myriad bioinformatics tools that the laboratory has created
- Added components to the user interface of the website for the Common Fund Data Ecosystem

### **BlueMatrix, Stylesheet and Front End Developer** 07/18 – 05/19

- Acted as primary developer for rollout of a client, responsible for developing XSLT, HTML, and Javascript code for email, webedit, and pdf stylesheets
- Created HTML5 investment reports for clients using Javascript, JQuery, HTML5, CSS, Bootstrap and XSLT
- Led migration of five clients from Creator 3/XSLT 1.0 to Creator 4/XSLT 2.0 platform in preproduction and production, debugging errors in stylesheets and fixing styles to produce optimal viewing of reports for clients
- Completed support tickets by fixing stylesheet bugs using knowledge of XSLT
- Developed emails for clients using HTML and CSS
- Wrote an algorithm in Javascript that was responsible for lazy loading SVG images in HTML5 reports and improved loading of reports in mobile and desktop
- Liaised with designers, account managers and client support specialists to facilitate onboarding of both new and existing clients
- Led project to automate generation of client stylesheets and wrote a form in Javascript that generates XML

### **General Assembly, Web Development Immersive / Engineering Fellow** 01/18 – 06/18

- Gained proficiency in full-stack web development through completing an intensive program focused on Javascript, React, Node.js, Express.js, PostgreSQL, Ajax and Ruby on Rails
- Completed four projects that demonstrated fluency in full-stack Javascript and exhibited skills in project management

## Education

### **Northwestern University**

B.A. – Biological Sciences, Chemistry

Graduated June 2016