Shuai Hao

Boston Metropolitan Area

sh3831@columbia.edu | haoshuai999.github.io/me/

github.com/haoshuai999/ | linkedin.com/in/shuaihaofzny/

EDUCATION

Columbia University   New York, NY
Dual Degree M.S. in Computer Science and M.S. in Journalism   08/01/2018 – 05/20/2020
- Coursework: Computational Journalism, Data Visualization, Database, Natural Language Processing and User Interface Design

Communication University of China   Beijing, CN
B.A. in Journalism, Minor: Computer Science (Ranked in top 5% of the class)   09/01/2014 – 07/01/2018
- Coursework: Data Structure, Web Design & Improvement, Probability & Statistics and Multimedia Reporting & Editing

TECHNICAL SKILLS

- **Programming:** C, C++, Python, R, Ruby, SQL, PHP, HTML, CSS (Tailwind), JavaScript (D3 + Svelte, jQuery, Node, React)
- **Data Analysis:** Gephi, Google Colaboratory, Jupyter Notebook, KNIME, Observable, OpenRefine, QGIS, SPSS, Tableau
- **Digital:** Adobe Suite, Bloomberg Terminal, Datawrapper, Figma, Git, Infogram, Linux, Mapbox, Microsoft Suite, WordPress

PROFESSIONAL EXPERIENCE

Moody's Investors Service   New York, NY
Associate Software Developer   02/07/2022 – Now
- Developed seven interactive data dashboards allowing users to upload spreadsheets and generate customized SVG/PNG images
- Built a web application with a zoomable collapsible tree, a sidebar and search/filter functions to show all research themes
- Set up an internal charting library and an UI library to automate, templatize and accelerate the creation of data visualizations
- Created mobile-friendly scrollable [data stories](#) using ai2html, D3, Layer Cake, and Svelte after cleaning credit research data

CoinDesk   New York, NY
Data Visualization Analyst   06/08/2020 – 02/04/2022
- Scraped, wrangled and parsed financial data on Google Colab for CoinDesk Index products and [quarterly reviews](#)
- Built [17 automated chart templates](#) in D3.js to visualize price, market capitalization, volatility and correlations of crypto and macro assets. Journalists can use templates to generate custom charts, embed them in the CMS and download data for analysis
- Created over 400 charts using Tableau, Datawrapper and Photoshop for daily news stories and [social media posts](#)
- Set up [an interactive dashboard](#) using SQL to visualize how Ethereum's London upgrade improved the blockchain

USA TODAY Network   McLean, VA
Interactive Graphics Intern   06/18/2019 – 08/23/2019
- Developed five visual data projects on politics, education, history and health. Work included analyzing and cleaning data in Pandas, extracting pixel values of images in PIL and making D3 animations. Created interactive maps, bubble charts and SVG transformations for a node.js project about [the history of slavery](#) in the U.S., which received more than 300,000 pageviews
- Improved and updated a timeline template by reorganizing elements on the web page in Angular.js for a story about [how women fought for suffrage](#). Used Adobe Illustrator and Photoshop to design and polish [a map about marijuana legislation](#)

Caixin Media   Beijing, CN
Data Journalism Intern   06/19/2017 – 09/19/2017
- Analyzed large databases and visualized launching sites, maximum range and payload of missiles with an interactive chart in D3.js and two static charts in Adobe Illustrator to display increasing security threats from [North Korean missiles](#)
- Designed three interactive webpages examining topics such as school bus regulations in China and the U.S., geographic positions between Chinese universities and the rank of rising billionaires in China

PROJECTS

Data Visualization | Banks in emerging markets   Oct. - Dec. 2024
- Created [an interactive website](#) using D3.js, ai2html and Svelte to tell a story about the common obstacles banks in emerging markets are facing. Built fluid and interactive charts using Layer Cake and animated the charts as users scroll to compare the bank performance in different regions

Web Development | Chart Generator   Oct. 2022 - Now
- Built and maintained a charting library using D3.js, three.js and Svelte to help the team create charts in my company's styles. Users can upload their own data, customize 24 types of charts using the generator, and install the library directly using NPM