Shuai Hao

Boston Metropolitan Area

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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 (Bootstrap), JavaScript (D3 + Svelte, jQuery, Node, React)
- **Data Analysis:** Gephi, Google Colaboratory, KNIME, Neo4j, Observable, OpenRefine, QGIS, SPSS, Stata, 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   02/07/2020 – 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 a chart generator with nine chart types in D3.js to automate and speed up the creation of data visualizations
- Created two mobile-friendly scrollable data stories using ai2html, D3 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 Korea 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 | Evolution of Terrorism   Apr. - May 2019
- Created an interactive website in D3.js and scrollama.js to explore why and how terrorism evolved over the years by analyzing 180,000 rows of data about weapons, victims and perpetrators of attacks in last 50 years using Pandas. Designed interactive maps and line charts to stress the increase of deadly terrorism attacks

Database & Web Development | NYC Parks Database   Feb. - Apr. 2019
- Built a database in PostgreSQL from scratch and a user interface with add, edit, delete and search functions using SQLAlchemy, Flask and jQuery on Google Cloud Platform. Users could explore all monuments, eateries, hiking trails and crimes around the public parks and get contact information of park supervisors in New York City