Jazon (Canwen) Jiao

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Education

Stanford University Stanford, CA
- *M.S. Computer Science* (GPA: 4.0) Sept. 2020 – June 2022
- **Courses**: Databases; Web Applications; Natural Language Processing; Data Mining; Computer Systems

Vanderbilt University Nashville, TN
- *B.S. Computer Science and Maths*, summa cum laude (GPA: 3.99) Aug. 2017 – May 2020

Experience

TuSimple San Diego, CA
Full-stack Developer Intern June 2021 – Sept. 2021
- Enhanced an internal tool called Map Editor, using **Vue.js** (front-end) and Python (back-end)
- Built a feature similar to Google Maps street view—given a GPS point, query and display images taken here
- Redesigned the front-end window for editing map layers, so that code is more expandable for future needs
- Implemented a database with **MongoEngine** that can save, modify, and retrieve comments on the map

Social Impact Lab, Stanford GSB Stanford, CA
Recommendation System Research Assistant Dec. 2020 – June 2021
- Designed and implemented a recommender system for Freadom, an English-learning app for children
- Used document embeddings to convert articles into input features for recommendation
- Improved error (RMSE) score from 0.372 to 0.342 on test set, and explored pros and cons of other metrics

Tencent Maps, Tencent (Remote)
Software Engineering Intern May 2020 – July 2020
- Built Python code to match nationwide road network of Tencent Maps with data from NavInfo
- Discovered 30,000+ missing or excess traffic lights in Tencent Maps, and analyzed cases

Institute for Software Integrated Systems, Vanderbilt University Nashville, TN
Data Mining Research Intern May 2019 – July 2019
- Helped develop Matlab code for tensor factorization algorithms based on PCA that detect outliers
- Co-authored a paper that is accepted at a selective NIPS workshop

Projects

QA over dialogue from TV series (CS 224n Final Project) Feb. 2021 – Mar 2021
- Modified the BERT model in the Hugging Face `transformers` library to perform QA over dialogue
- Proposed a novel back-translation method that effectively augment training data
- Ensembled models to improve state-of-the-art F1 score on the FriendsQA dataset by 2.5 points to 72.1

Photo Sharing Website (CS 142, Web Applications — Final Project) Feb. 2021 – Mar. 2021
- Used front-end tools such as **React.js** and Material-UI to build an Instagram-like website
- Built the backend server for our website with **Node.js** and **MongoDB**

Explanatory Math Videos Oct. 2018 – May 2019
- Built up a **JavaScript** library (Manim.js) for math concepts animation, with **130+ stars** on GitHub
- Used the software to make videos and interactive websites explaining linear algebra and graph theory
- My YouTube channel was endorsed by famous YouTuber 3Blue1Brown, and now has 2,600+ subscribers

Programming Skills

- *Languages:* Python (numpy, pandas, PyTorch), C++, JavaScript, Java, Matlab, R, SQL, PHP, HTML, CSS
- *Web technologies:* React.js, Node.js, Express.js, Vue.js, MongoDB, NoSQL, jQuery, Bootstrap
- *Tools:* Linux, git, bash/shell, AWS/Azure/Google Cloud, VSCode, Apache Spark, Hadoop