Ivan Zhao

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Education

Brown University *Providence, RI*

B.S. IN APPLIED MATH AND COMPUTER SCIENCE (DESIGN AND AI/ML TRACK) **GPA: 4.0/4.0** *Expected May 2022*

Experience

Mojotech *Providence, RI*

SOFTWARE ENGINEERING INTERN *June 2020 - Aug 2020*

- Developed internal project management tool used by **60+** engineers, designers, and PM's in **React, Redux** and **Phoenix**
- Integrated Github and Slack webhooks into project which reduced server load time by **25%** by processing event payloads with a background job queue in **Elixir** and **Phoenix**
- Introduced project listing features and global configuration support for command-line interface tool in **Node** and **Javascript**

Intus Care *Providence, RI*

SOFTWARE ENGINEER AND PRODUCT MANAGER *October 2019 - May 2020*

- Led team of 8 developers and designers to build a web dashboard and mobile check-in app in **React, Redux** and **Typescript** for a **100+** user pilot, resulting in initial seed round funding of **$500k**
- Built a resourceful REST API and implemented authentication through JWT using **Node, Express,** and **MongoDB**
- Used clustering algorithm on patient data to determine risk grouping based on form answers with **71%** accuracy

Loftium *Seattle, WA*

OPERATIONS INTERN *June 2019 - Aug 2019*

- Integrated third-party apps in **Javascript** to automate data migration from internal database to Hubspot, significantly increasing efficiency of 15 person operations team
- Automated **A/B testing** on product listings to determine product market fit in new markets, resulting in acquisition of **50+ users** in Phoenix, San Jose, and Austin
- Created a chatbot in **Javascript** using Messenger and Sheets API that processed user queries and stored relevant data in a Google Sheet to manage over **100 users** a day with an **18%** conversion rate from Facebook to landing page

Projects

Staying Informed Just to Feel Something

TWITTER VIRTUAL HACKATHON - WON BEST SOCIAL HACK

- Developed a webapp in **Flask, React** and **Tensorflow** using Twitter API to allow users to make more informed decisions on whether they wanted to engage with a post
- Implemented CNN Model in **Tensorflow** that processes text data from tweets or sites for truth value with **74%** accuracy

Optical Music Recognition

- Created a conversion software that processes any readable image file and outputs the corresponding MIDI file
- Implemented Hough Detection and Flood Fill algorithms to preprocess sheet music to features in **Python, Tensorflow, and OpenCV**
- Deployed a CNN DL model to classify important features such as notes, accidentals, and dynamics with **90%** accuracy

Rhyme Time

- Developed a language model in **Tensorflow** to generate limericks using LSTM cells through phoneme detection and then mapping to words using CMU's phoneme dictionary
- Scraped 75,000 poems from the web using **Python and BeautifulSoup** to pull limericks and parse them into functional data

Wander

- Designed the frontend which allows users to create itineraries, add interest points, and view itineraries in **React Native** and **Firebase**
- Integrated flight information from email using **Email Parsing API** to automate creation of itineraries with relevant flight info
- Utilized Google's **Search Places API** to find points of interest and implemented **Dijkstra's algorithm** to optimize travelling time between key locations

Leadership Experience

Brown RISD Innovation Community *Providence, RI*

COFOUNDER *March 2020 - Present*

- Cofounded a club at Brown - RISD with over **150** interested members that emphasizes cross-community collaboration through workshops, projects, and community events
- Led a team of **10** students to develop curriculum workshops and plans for the upcoming semester, developed strong brand identities and design systems, and created programming content around topics of innovation to present to interested student members

Skills

Programming	Python, C, Scala, Java, Javascript, Elixir, OCaml, HTML, CSS
Frameworks	Tensorflow, PyTorch, React, React Native, Redux, Phoenix, Node, Express, Flask, MySQL, PostgreSQL, MongoDB, Firebase
Tools	Docker, Jira, Linux, Adobe Suite (Illustration, XD, Photoshop), Figma, Git, Github, Trello, Scrum
Hobbies	Climbing, Baking, Crosswords, Dogs, Travelling