Haonan Zhang

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SUMMARY

A motivated and enthusiastic front-end developer. Seeking a career in the IT industry where knowledge and skills can be put to efficient use. I am an efficient team player and enjoy taking the initiative to create positive outcomes for people. I'm constantly striving to learn new technologies and frameworks in my spare time.

SKILLS LIST

- **Web development:** React, Javascript ES6, HTML5, CSS3, SASS, Node.js, Axios, Responsive Design, flexbox, UI/UX Design, Bootstrap, Material-UI, Font Awesome, React Icons, Google Fonts, npm, yarn, Babel, Webpack.
- **Develops Tools & Platforms:** Jira, Github, Bitbucket, Git, PowerShell, AWS, Postman, Visual Studio Code.
- **Methodologies:** Agile/ Scrum.
- **Database:** Familiar with common features of SQLite, MySQL and PostgreSQL for database query and construction of query programs.
- **Python**: Familiar with common features of Python, able to use metaprogramming appropriately to solve problems elegantly. Jupyter, Pandas, Numpy, Scikit-Learn, Tensorflow + Keras, OpenCV, Matplotlib, SciPy.
- **C**: Familiar with C language data structure and algorithm.

PROJECT EXPERIENCE

My Weather App Sep 2021 - Sep 2021

Owner Sydney

https://conanzahn.github.io/myweather/

- Design and developed a weather web application by using the latest react library and open API.
- Objectives: implement search function to check the weather, offer current weather and 5 days forecast.
- Using React17.0.2 to build front-end framework. Using Javascript, CSS, styled-components, flexbox, Axios, npm, Font Awesome, React Iconsm React Animated Weather, Google Fonts.
- Using OpenWeatherMap as backend open API.
- Successfully deployed to AWS S3 and GitHub Pages.

Personal Website Jul 2021 - Aug 2021

Owner Sydney

http://haonan.zhang.website.s3-website.us-east-2.amazonaws.com/

- Design and develop my personal website application by using the latest React library.

- Objectives: implement a website to introduce myself, display about me, resume, project and contact pages to let people know me.
- Using React17.0.2 to build framework. Using skills: Git, GitHub, React, Javascript, Bootstrap, styled-components, CSS, Sass, Font Awesome, npm.
- Using Formspree backend open API as a send email service.
- Successfully deployed to AWS S3 and GitHub Pages.

Eatery Voucher Website Jun 2021 - Aug 2021

Leader & Front End Developer & Scrum Master Sydney

https://github.com/conanzahn/ValueEatsWebsite9900.git

- Design and develop an eatery voucher application by using the Django framework and the latest React library.
- Lead a 5-member team with 2 frontend developers and 3 backend developers.
- Helped team successfully deliver the project on time with quite well quality.
- Objectives: Implement a website to serve eatery and dinner users. Allow users to create an account and manage their profiles. Allow eateries to create and verify their restaurant's voucher, allow diners to navigate and book vouchers.
- Main features: For diners, provides personalized recommendations, search, navigate, book vouchers, add reviews, subscription, order history features; For eateries, provides create voucher, verify vouchers, search, check voucher stock features.
- Using React17.0.2 to build front-end framework. Using skills: Javascript, styled-components, CSS, Sass, npm, Axios, Bootstrap, Material-UI, Font Awesome.
- Using Django3.2.4 to build back-end framework. Using SQLite as database. Using JSON Web Token for authentication. Using Postman for API testing.
- Design project proposal, construct all possible user stories and design a road map of the project.
- Using Git to manage version control and solve team code conflicts. Using GitHub to manage project code.
- Using Jira to manage team co-operate, assign tasks to team members. Totally, I have created six sprints for this project, each sprint contains some features that support user stories.
- Responsible for front-end development, team management, project management, Architecture design, UI/UX design.

Velocity Estimation and Lane Detection (Computer Vision) Apr 2021 - Apr 2021

- Skills: Python, OpenCV, Scikit-Learn, Matplotlib, SciPy, Numpy.
- Responsibility: Driving Lane Detection.
- Method of Driving Lane Detection divided into three parts: Dataset Preprocessing, Detection, Optimization.
- Extract Region of interest(ROI) from the whole training data set.
- Apply the Gaussian smoothing algorithm to remove noises.
- Combine RGB and HSV colour spaces with specific thresholding.

- Use the canny edge detector to find the boundary position of the driving lane.
- Apply the Hough Transform as a feature extraction technique to detect whether a line exists in the edge image.
- Averaging and extrapolating are chosen to optimize the results, the reason is that each driving lane lines in the image have a different slope, using this can grouping and dividing lines.

Vehicle Detection (Computer Vision) Mar 2021 - Mar 2021

Skills: Python, OpenCV, Scikit-Learn, Matplotlib, SciPy, Numpy.
Preprocessing: Extract vehicle image regions(ROI) from the whole training data set, using the 'bbox' message from the annotation file.
Feature extraction: I select the histogram of oriented gradients(HOG) method to extract features.
Classifier: Use support vector machine (SVM) model.
Object Detection: Use sliding window technology to search vehicles in images.

Classification and rating prediction for user reviews (deep learning model) Sep 2020 - Nov 2020

Sydney

- Write a Pytorch program to analyze review scores and industry classification.
- Use NLP methods such as regular expression, stem extraction, and stop words to preprocess the data.
- Construct a two-way LSTM neural network and the corresponding loss function.
- Train the model, analyze the results and adjust the hyperparameters of the training model, and repeatedly debug to get the best performance parameters.
- Use the model to predict user reviews, and finally achieved 90% accuracy in the test.

Rossmann sales forecast (machine learning)-Kaggle competition project Jun 2020 - Jul 2020

Sydney

- https://github.com/conanzahn/Rossmann-sales-forecast-Machine-Learning-.git
- Preprocess the data, clean the data.
- Build Ridge model, Lasso model, decision tree model, random forest model, integrated model to analyze and predict the database.

Sentiment analysis for Twitter user comments Jun 2020 - Jul 2020

Sydney

- Perform text preprocessing on the Twitter comment data set.
- Build decision tree models, Bernoulli models, and polynomial models for the data set, and perform model training on the data set.

EDUCATION

University of New South Wales Sep 2019 - Sep 2021

Master of Information Technology. Faculty of Engineering Sydney

- **Related courses:** deep learning, machine learning and data mining, artificial intelligence, human-computer interaction, data structure and algorithms, database systems, computer networks and applications

Hanshan Normal University, China Sep 2014 - Sep 2018

Biology Science. Bachelor Faculty of Biology Sciences. Chaoshan

MISCELLANEOUS

- **Skills:** Front-end, Web Development, React, SQL, Python, C, Xmind, Sketch, Office, Photoshop, Lightroom.
- **Certifications:** Teacher qualification certificate, Mental health education C certificate, Mandarin level certificate
- **Languages:** English (IELTS: 6.5), English (CET-6), English (CET-4), Mandarin (Level 2)
- **Interests:** Coding, Design, Video Games, Photography, Cooking, Travel , Reading, Podcast.