JAMES(YIXUAN) ZHANG
(Seeking for Software Engineer Intern in 2020 Summer)

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4500 Centre Ave, One on Centre 922, Pittsburgh, PA, USA

EDUCATION

UNIVERSITY OF PITTSBURGH   **August 2019 – April 2021**
Master of Science in Information Science, GPA: 3.95/4.00
Courses: Algorithms Design, Data Structure, Neural Networks, Web Technology & Standards, Database Management
UNIVERSITY OF PITTSBURGH   **August 2017 – April 2019**
Master of Science in Chemical and Petroleum Engineering, GPA: 3.98/4.00

CHINA UNIVERSITY OF PETROLEUM, BEIJING   **August 2013 – June 2017**
Bachelor of Science in Petroleum Engineering
Mathematics and Applied Mathematics

SKILLS

- **Languages:** Java, JavaScript (ES6), Python 3, Swift 5, HTML5, CSS3, MATLAB, C
- **Frameworks & Libraries**: Spring Boot, React/Redux, Express, Node.js, Angular 6, Ionic 4.
- **Databases & Tools**: MySQL, MongoDB
- **Version Control**: Git, GitHub

PROJECTS

E-COMMERCE WEBSITE (FULL STACK WEBSITE)   **October 2019 – December 2019**
An E-commerce website for both customers, sellers and managers.
- Built backend with **Spring Boot Maven.**
- Implemented frontend with native JavaScript, HTML 5 and CSS. Connected frontend and backend with Json by **Ajax**.
- Used **Hibernate** to connect backend to MySQL database.
- Enhanced login with **Google+** API and used **Spring Security** to encrypt information.
- Design data aggregation and visualizations for different users with data visualization.

FEEDBACK COLLECTION APP (FULL STACK WEB APP)   **August 2019 – September 2019**
An application including from authentication to billing/payments, feedback collecting and email handling.
- Built user login **Google OAuth Authentication**. Connect a front-end Create-React-App server to a **NodeJS** and **Express** backend. Connect data from **Mongo** database to the React application.
- Routed user requests on the front end with **React Router** and on the back end with express. Build reusable user inputs with **Redux Form**, complete with navigation.
- Handled credits cards and receive online payments with **Stripe**. Engage users with automated emails. Separate production and development resources with advanced API key handling techniques.

NAVIGATION MAP (BACK END OF A WEB APP)   **July 2019 – August 2019**
Demo link: http://bearmaps-yiz132.herokuapp.com/map.html
A navigation map web app which supporting searching location, finding the shortest path
- Implemented **A* shortest path** Algorithm, K-d Tree in backend with Java and implement the auto-complete location searching system with Tries built previously.
- Implemented map-rastering by converting information into a pixel-by-pixel image and converting user's desired input to files that should be displayed in response to this query.
- Implemented location auto-complete search system

RESEARCH EXPERIENCE IN ENGINEERING
Stress Dependence of the Burst Experiment for Determining Fracture Toughness (paper in preparation)
Funded by University of Pittsburgh & Chevron   **April 2018 – April 2019**
- Pre-processed raw lab data from Acoustic Emission and pressure monitor system with 10 Gigabyte-size. Then built mathematic model.
- Designed and Performed experiments to bench mark the mathematic modeling.