Can Deng

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WORK EXPERIENCE

Module Development Engineer, Analog Devices Inc.   07/2019 – present
- Developed a web application with **React.js** and **Spring Boot** for automatic generation of datasheet graphs and file upload/download
- Built applications in **Java** and **VBA** to complete tasks which were done manually before, eliminated human mistakes and significantly improved efficiency by 95%
- Developed VBA apps to simplify tasks such as import, analysis and visualization of large data sets

TECHNICAL SKILLS

Languages	Java, Python, C, C++, VBA, HTML, CSS, JavaScript
Web Development:	Spring Boot, React, Redux, GraphQL, Express.js, Gatsby.js, Node.js, Spring MVC, Thymeleaf, Bootstrap
Databases:	PostgreSQL, MongoDB, Firebase, MySQL
Tools & Platforms:	Git, Docker, Stripe, MongoDB Atlas, Netlify, Heroku, GCP, AWS

EDUCATION

University of Michigan   09/2017 - 05/2019
M.S. in Electrical and Computer Engineering, GPA: 3.92/4.0

University of Electronic Science and Technology of China (UESTC)   09/2013 - 07/2017
B.E. in Electrical Engineering, GPA: 3.82/4.0

PROJECTS

Gem Clothing (React, Redux, Firebase, GraphQL, Express, Stripe)   [Demo]
Full stack **E-commerce** web application for a clothing shop   [Github]
- Developed a **React** SPA web application featuring login, add-to-cart, payment and cross-device support
- Integrated **Firebase** for login authentication and shopping data storage
- Integrated **Stripe** platform and built **Express** backend for Stripe payment server
- Improved data query efficiency and flexibility with **GraphQL**

Project Management (Spring Boot, PostgreSQL, Docker, AWS)   [Demo]
Full stack **Spring Boot** web application for employees and projects management   [Github]
- Integrated **PostgreSQL** to store data of project and employee details
- Implemented user authentication and authorization with **Spring Security**
- Refactored and improved system throughput by decoupling services using **RESTful API**
- **Dockerized** the application and deployed to **AWS EC2** and **RDS**

Footprint (Node.js, Express.js, MongoDB, Google Maps APIs, Passport.js, Bootstrap 4)   [Demo]
Full stack web travel blog application   [Github]
- Built an **Express** web app where users can log in, post and view travel blogs and comments
- Designed and implemented **MongoDB** structure to store blogs and comments data
- implemented user authentication with **Passport.js** and embedded google maps with **Google Maps API**

BearMaps (Java Spark)   [Demo]
Web mapping application hosted on **Heroku**   [Github]
- Implemented backend features such as **map rastering, zooming/dragging, autocomplete and search, routing and turn-by-turn navigation**
- Improved time complexity significantly by using **A* algorithm** and **K-D tree** to find the shortest routes, and **Trie tree** for quick autocomplete suggestions in location search

Gitlet (Java)
Mini version control system inspired by **Git**   [Github]
- Designed and built Gitlet that can stage, track and commit files, view current status and commit history, revert to previous versions, create and merge branches both locally and remotely