

Can Deng

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[GitHub](#) | [Personal Website](#) | [LinkedIn](#)

WORK EXPERIENCE

- Module Development Engineer, Analog Devices Inc. 07/2019 – present
- Designed and built tools in VBA to simplify tasks such as import, analysis, visualization of large data sets and automatic generation of datasheet graphs
 - Built software to complete tasks which were done manually before, eliminated human mistakes and significantly improved efficiency by 95%

TECHNICAL SKILLS

- **Language:** Java, Python, C, Scheme, VBA, MATLAB, HTML, CSS, JavaScript
- **Web Development:** Spring Boot 2, Express.js, Node.js, Thymeleaf, Spring MVC, Spring Security, mongoose, Passport.js, moment.js, Bootstrap, jQuery
- **Database:** PostgreSQL, MongoDB, MySQL
- **Tools and Platforms:** Git, Docker, Postman, ARC, Chrome DevTools, MongoDB Atlas, 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

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
 - Supported commands: **init, add, rm, commit, status, log, checkout, reset, branch, rm-branch, merge, add-remote, rm-remote, push, pull, fetch and clone**

Project Management (Spring Boot 2, PostgreSQL, Docker, AWS)

- Full stack web application for project management [\[Demo\]](#) [\[Github\]](#)
- Built a web project management application where users can view employees and projects details, create, edit and delete employees and projects
 - Integrated **PostgreSQL** to store data of projects, employees and user accounts
 - Implemented user authentication and authorization with **Spring Security**
 - Refactored and improved system throughput by decoupling services using **RESTful API**
 - **Dockerized** the application and deployed application to **AWS EC2** and **RDS**

Footprint (Node.js, Express.js, MongoDB, Passport.js, Bootstrap 4)

- Full stack web travel blog application [\[Demo\]](#) [\[Github\]](#)
- Built Footprint where users can log in, post, view, edit and delete travel blogs and comments, and view locations through the embedded google map
 - Designed and implemented **MongoDB** structure to store blogs and comments data
 - Improved application interactivity using **Google Maps APIs** to support embedded google map, **moment.js** to show action timestamps, and **connect-flash** to show flash messages
 - Deployed application to **Heroku** and **MongoDB Atlas**

BearMaps (Java Spark)

- Web mapping application hosted on **Heroku** [\[Demo\]](#) [\[Github\]](#)
- 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