LE PAN

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EDUCATION

UNIVERSITY OF PENNSYLVANIA, Philadelphia, PA, USA *May 2022*
Master of Science in Engineering, Computer & Information Technology ***GPA: 4.0/4.0***
Master of Science in Engineering, Materials Science & Engineering

Courses*:* Database & Information Systems, Programming Languages & Techniques, Introduction to Computer Systems, Computer Systems Programming, Data Structures and Software Design, Algorithms & Computation

BEIHANG UNIVERSITY, Beijing, China *Jul 2019*
Bachelor of Engineering, Materials Science & Engineering ***GPA: 3.7/ 4.0***

TECHNICAL SKILLS

- **Programming Languages:** Java, Python, JavaScript, C, MATLAB, Kotlin, SQL
- **Databases:** MySQL, MongoDB, Oracle, Neo4j
- **Cloud Services:** AWS, Heroku, Parse
- **Technologies:** HTML, CSS, XML, Bootstrap, Node, Express, React, jQuery, Android SDK, Pandas, Git

ACADEMIC PROJECTS

RecipeGo - Personalized Recipe Recommendations and Search Engine *Aug 2020 – Present*
- Build a recipe recommendation and search engine with collaborative filtering and multi-level search based on user preferences and choices.
- Perform exploratory data analysis using Pandas in Python, build and populate relational database MySQL on AWS RDS, deploy web application on EC2 instance.
- Develop core algorithm using nested SQL queries and optimize query by creating B-tree index.

Emaily - Customer Feedback Collection Application *Jul 2020 – Sep 2020*
- Developed a full-stack web service application to support the feedback collection service by sending out email surveys to customers.
- Built MERN stack (MongoDB/Express/React-Redux/Node) with Bootstrap CSS framework for styling.
- Utilized Google OAuth for user authentication, applied Stripe to handle user credit payments, and used SendGrid to send email and keep track of survey responses.
- Separated production environment from development environment through Heroku.

Rideshare Android App *Apr 2020 – Jun 2020*
- Designed interfaces and developed functionalities for both passenger app and driver app.
- Implemented app in Java aided by Google Map API, achieved features including registration, ride booking, driver tracking, driver allocation, navigation and messaging between rider and driver.
- Utilized Parse server for backend data storage, update and maintenance, and hosted app on AWS EC2 instance.

BookBank - Book Review Web Application *Jan 2020 – Apr 2020*
- Developed a full-stack web application that enables users to write reviews and rate books.
- Built a RESTful routing application based on MongoDB/Express/Node stack.
- Achieved responsive layout by HTML, CSS, EJS and Bootstrap framework.
- Implemented functionalities including reviews management, user profiles management, book search, book recommendations, and completed user authentication through Passport.

Chaser - 2D Tile-based Roguelike Game *Nov 2019 – Dec 2019*
- Designed and implemented a roguelike game in Java which allows player character to move around random generated rooms and hallways, interact with environment around him and win the game by arriving destination in limited steps without being caught up by enemy.
- Implemented procedural generation of world in different level, designed multiple game modes, added UI elements, and achieved features including saving and loading.

WORK EXPERIENCE

Research Assistant, University of Virginia, USA *Jul 2019 – Aug 2019*
- Applied HOT-DIW technique to develop a 3D printer and realized digital assembly of soft elastomeric materials.

Internship of Retail Department, Bank of Jiangsu, China *Jul 2018 – Aug 2018*
- Implemented customer marketing, organized publicity activities and assisted customers for banking business.