Mia Duan Zhang

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SKILLS

LANGUAGES

Java
Python
Kotlin
SQL
Javascript

TECHNOLOGIES

Django
Firebase
MVC model
Database
HTML/CSS
Jupyter
Git
LaTeX

OTHERS

Linux
JSON
XML
R
Stata

EDUCATION

PHD, TECHNOLOGY INFORMATION MANAGEMENT

University of California, Santa Cruz
Mar 2020 | Santa Cruz, CA | GPA: 3.9

MS, GEOGRAPHY AND ENVIRONMENTAL ENGINEERING

Johns Hopkins University
Dec 2013 | Baltimore, MD | GPA: 3.9

BS, ENVIRONMENTAL SCIENCE

Renmin University of China
Jun 2012 | Beijing, China | GPA: 3.5

LINKS

Website: // **shorturl.at/ovxC1**
LinkedIn:// **duan-zhang**
Github:// **cicimia2266**

OBJECTIVE

- To obtain a full-time software engineer position.

PROJECT

PLANIT: A PROJECT MANAGEMENT ANDROID APPLICATION FOR TEAM COLLABORATION

Jun 2020 – Aug 2020 | Fremont, CA

- Developed a cloud-based Kanban-style project management **Android** app with **Kotlin** and **Java** based on a **NoSQL** database.
- Used **Cloud Firestore** and **Cloud Storage for Firebase** to handle user-generated data, and used **Firebase** to handle authentication.
- Built an authorization system that only allows owner and invited users to view and edit task lists.
- Developed UX-improving features like swipe-to-delete, drag-to-swap-order and swipe-to-show-navigation-menu.

PHOTODONUT: A PHOTO-SHARING WEB APPLICATION WITH SOCIAL FEATURES

May 2020 – Jun 2020 | Fremont, CA

- Built a social-focused photo-sharing web application with **Django**, **python** and **Javascript**, applying the **MVC model**.
- Implemented common features like user authentication and authorization, as well as many social features, such as follow, like, comment and user profile, based on a **SQLite** database.
- Designed and implemented a consistent UI with styles and resources from **Bootstrap** and Font Awesome using **HTML/CSS** and **Javascript**.
- Deployed the website on **Heroku** with source control software **Git**.

A MACHINE LEARNING MODEL TO PREDICT CARBON EMISSIONS FROM ELECTRICITY SUPPLY DATA

Jan 2016 – Mar 2016 | UCSC, CA

- Implemented data mining algorithms including K-nearest neighbors, regression, Support Vector Machine, etc. to predict carbon emissions from power plant generation data, using **sklearn**, **numpy** and **pandas**.
- Compared model results with evaluation metrics such as R-square to indicate the goodness of fit and the MSE and MAE to show the prediction error.
- Achieved data visualization using **Jupyter notebook** and **matplotlib**, directly showed the performance of different machine learning algorithms.

EXPERIENCE

UNIVERSITY OF CALIFORNIA, SANTA CRUZ | Graduate Student Researcher

Sep 2015 – Mar 2020 | Santa Cruz, CA
Energy Economic Modeling and Data Analysis

- Collected and cleansed industrial U.S. input-output data and transportation data and constructed a U.S. regional bilateral commodity trade flow matrix in **R**.
- Developed a macro-economic Computable General Equilibrium model in popular optimization software GAMS, to quantify the impact of climate-change-induced hazards on California natural gas systems and identify vulnerable infrastructures.
- Developed a workflow for large scale data computations and boosted the efficiency by ~100x using carefully designed **python** script.