

ZHOUKATONG XIA

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EDUCATION

The University of Texas at Dallas | Dallas, TX (GPA: 3.64)

08/2019 – 12/2021(Excepted)

Master of Science (Candidate) – Computer Science

Harbin University of Science & Technology | Harbin, China

08/2011 – 06/2015

Bachelor of Engineering – Electrical and Mechanical Engineering

CORE SKILLS

Languages: Python, Java, HTML, CSS, JavaScript, SQL,

Developer Tools / Databases: Git, Django, MySQL, MongoDB

Cloud Services: AWS (EC2, S3, IAM, Lambda, API Gateway), Azure

Others: Linux(Bash), Machine Learning

ACADEMIC PROJECTS

Serverless web application for requesting unicorn rides (07/2021)

RESTful APIs, CI/CD, Node.js, AWS(Lambda, API Gateway, Amplify, Cognito, DynamoDB)

Built a full stack **serverless** web application that enables user to request unicorn rides after indicating their location to pick up.

Used AWS Amplify to **continuously deploy and host** web resources including **HTML**, **CSS**, and **JavaScript** files.

Built the backend using **Node.js** and **AWS Lambda**, held data using **DynamoDB** Database.

Exposed the backend function as **RESTful API** using AWS API Gateway and used client-side JavaScript to make remote request.

Used **AWS Cognito** to provides user management and authentication functions to secure all backend APIs.

DEMO: <https://joe-xia-homepage.s3.us-east-2.amazonaws.com/Joe's+home+page.html>

Jewelry Sales Website (05/2020)

jQuery, BootStrap, Django

Developed an e-commerce website based on Django Framework.

Used **HTML**, **CSS**, **JavaScript**, **jQuery**, **XML** for front-end implement, and **BootStrap** for user interface design.

Implemented the back-end using **python** and **Django**.

Used **MySQL** database, all tables normalized to **3NF**.

Relational Database Design for Food Festive Supermarket (04/2020)

EER designing, 3NF Normalization, SQL, MySQL

Designed and achieved a relational database for Food Festive Supermarket grocery store.

Applied **EER designing** and built 30+ **3NF-tables** based on EER schema.

Built a simulation program using **python** and **NLTK** to generate testing data for each table.

Used MySQL to implement the whole database and tested with advanced **SQL** queries.

Product Identification and Organization using Machine Learning (12/2020 – 02/2021)

Numpy, TensorFlow, NLTK, Keras, Matplotlib

Identified same products from eBay database using **machine learning** and **natural language processing**.

Divided hundreds of thousands of products into groups using highly customized, user-uploaded photos and product description

- used **NLTK** to attract key features from product description,
- used **TensorFlow** to generate embeddings from product image,
- built a **Neural Network** based on **Keras** to identify same products.

Successfully judging same products with accuracy of 98.2%

PROFESSIONAL EXPERIENCE

Beijing SDI Science & Technology CO., LTD | Beijing, China (03/2016 – 08/2018)

R&D Engineer

Spearheaded a team of three to generate surveying products, including topographic maps and 3D point cloud models.

Integrated a highly-functional surveying system using camera, Lidar and Gns-Ins, which delivers **real-time** topographic maps leveraging **Image and Point Cloud Fusion Algorithm**.

Provided technical support on autonomous vehicle's **sensing system**, performed **data gathering, processing, and analyzing** for multiple sensors.

ADDITIONAL CREDENTIALS

Activities

Technical Coordinator, AI Society at University of Texas at Dallas

Duty: Share knowledge of AI with beginners by holding presentations and workshops.