Yaning Hu

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EXPERIENCE

RiceApps | FRONT-END DEVELOPER & UI/UX DESIGNER
May 2020 – Present | Rice University

- Designed and implemented user interfaces with **Adobe XD & Illustrator** for RiceApp projects: Hedwig & Carpool & RiceDiscuss.
- Implemented the front-end and back-end features of a mobile-friendly website for "Hedwig," a food ordering service that expects 6000 Rice community users (buyers) and 3 student-run businesses (vendors); developed the front-end with **React.js, GraphQL, ApolloClient**; linked the Backend to **Twilio** and **SqaureAPI**.
- Consulted with "Hedwig" PMs to build user flow by conducting online client interviews with vendors; designed a dashboard for vendors to manage online orders campus-wide.
- Redesigned logo & UI for "Rice Carpool," to improve user experience; collaborated with "Rice Discuss" team to design the search function.

Astro | RESEARCH ASSISTANT, RICE UNIVERSITY
May 2020 – August 2020 | Advised by Dr. Edward Knightly

- From a **Machine Learning** perspective, configured massive MIMO beamforming, the key tech of 5G, to enable large data transmission for Rice Astro Lab's drones network.
- Employed an indoor data set of 25k user locations and corresponding CSIs (Channel State Information); fitted the data into a Convolutional Neural Network in **python** through **TensorFlow**. Based on the users' current locations, predicted the CSI matrix as the input for beamforming with an accuracy of 86%.
- Integrated a **Time-series Forecasting** VAR model with CSI calculation, which largely reduced the complexity of CSI matrix prediction.

PROJECTS

Secret Garden | WEB DEVELOPMENT
Personal Website

- Developed a personal website featuring my research experience showcases, design portfolios, and other personal information.
- Built the website with **React.JS**, **Gatsby**, and **react-spring** for animations; deployed the website with Vercel.

Rice Student Facebook Friend Circles | PYTHON
March 2020

- Inferred Rice Student friend circles by implementing the **Girvan-Newman method** on Rice Undergraduate Student Facebook Group database, and achieved a modularity of 0.25.
- Compared modularities under different partition methods and analyzed the results; concluded that "College" is the most probable influential factor on friend-circle formation.

Divorce Prediction | PYTHON
Feb 2020

- Built 2 Python models based on **Perceptron Learning** and **Lasso** algorithm to predict divorce using a data set from a questionnaire that consist of 54 aspects on life after marriage; tests yielded 83% & 76% accuracy.
- Analyzed the updated weights in Perceptron Learning; concluded 10/54 life aspects that are significant for a long-lasting marriage.

LINKS

Personal Website:// **secret-garden**
Github:// **helenahu**
LinkedIn:// **yaning-hu**

EDUCATION

RICE UNIVERSITY
Bachelor of Arts in Computer Science
Expected Graduation: May 2022
Cumulative GPA: 3.96 / 4.0
Major GPA: 4.0 / 4.0

CAPITAL NORMAL UNIVERSITY HIGH SCHOOL
Beijing, China
Sep 2016 to June 2019

SKILLS

TECHNOLOGY
Python • Java
JavaScript • CSS • React.js • Apollo Client • GraphQL • Mongoose
Git/Github • R • Scikit-Learn

CREATIVITY
Adobe XD • Illustrator • Premiere
Cubase

COURSEWORK

Program Design
Reasoning About Algorithms
Python Data Structures
Fundamentals of Computer Engineering
Probability and Statistics
Honors Linear Algebra
Honors Calculus
Real Analysis
Financial Accounting

SOCIETIES

RiceApps – Developer & Designer
Rice Chinese Student & Scholar Association – Public Relations
Rice Theater Club – Actress

HONORS & AWARDS

August 2020
OURI Summer Research Fellowship
Spring 2019
President's Honor Roll