

Duolan Ouyang

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EDUCATION

University of California San Diego (UC San Diego)

Sep. 2018 - Mar. 2022 (expected)

- B.S. in Computer Science (GPA: 3.93/4.0)

SKILLS & TECHNOLOGIES

Languages

Java, Python, JavaScript, C/C++, Swift, PHP, MATLAB

Technologies

Linux, Git, Firebase, React, Node.js, JUnit, GDB, PyTorch, Adobe XD

AI Related Topics

Traditional Machine Learning, CNN, RNN, Searching and Reasoning, Reinforcement Learning

PROFESSIONAL EXPERIENCES

Software Engineer Intern at Add-Care Limited Shenzhen, China

June. 2020 - Sept. 2020

- Worked on Motion Detection team and AWS team for wearable non-invasive glucose monitor device which would help more than a million diabetic patients.
- Evaluated and implemented the algorithm for heart rate and respiration rate extraction by MATLAB and C, and improved the prediction accuracy by more than 10%.
- Designed and implemented the user meal condition auto-correctness scheme and system by Python.

Academic Tutor at UC San Diego Computer Science Department La Jolla, CA

Sep. 2019 - Present

- Experience with tutoring multiple Java and Python intro-level courses with hundreds of students enrolled.
- Hold more than 100 hours of Lab Hour to help students with programming assignments.
- Design and implement test cases by Python and JUnit for more than 15 programming assignments.

User Interface Engineer at iSoftStone Inc. Nanjing, China

Jul. 2019 - Sep. 2019

- Utilized Bootstrap, JavaScript and LayUI Library to build frontend pages for a Microservice project.
- Collaborated with backend team to implement client side analysis interface.

PROJECTS

IntelliKitchen IOS Application

Mar. 2020 - June. 2020

- IntelliKitchen is a smart home manager which can track your chores and food, and set notification to remind you.
- Used Python to web scrape more than thousand of recipes and arrange them in Firebase realtime database.
- Designed the Firebase cloud database scheme to efficiently store and search user information.
- Used Swift to implement the notification system and food/chore reminding system.

Recipe 101 Web Application

Sep. 2019

- Recipe 101 is a website that can recommend recipes based on either manual input ingredients or market receipt.
- Used AWS Recognition API to implement the recipe recognition and parsing system.
- Used JavaScript and Node.js to implement searching algorithm based on the food expiration date and make realtime display.

Forbes Top 100 Celebrity Face Classification Machine Learning

Oct. 2019

- Utilized PyTorch to implement multiple Convolutional Neural Network (CNN) models including baseline model, several improved models, and transfer learning model based on AlexNet.
- Incorporated Weighted Sampling, Xavier Initialization, K-fold Validation, Batch Normalization and other state-of-art techniques so that the best model can achieve an accuracy of over 90%.

More Projects

Dec. 2018 - Present

- 2048 AI Algorithm: wrote heuristic decision tree, reached 4096 with > 95% consistency in Python.
- Smart Flashcards Generator: used Machine Learning algorithm to detect academic terminologies, used web scrape to auto-define the word, and used JavaScript to generate Flashcards.