Hui (Henry) Chen

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Education

New York City, NY **New York Institute of Technology** **2018 – Exp. May 2022**

- **Major:** Computer Science, B.S (GPA: 3.47)
- **Candidate for Accelerated Master Program:** Data Science, M.S
- **CS Coursework:** Data Structures & Algorithms, Operating System, Information Retrieval, Intro to Big Data
- **Involvement:** Tech Lead, Developer Student Club

Employment

Full-Stack Web Developer, Intern **SkyMobile Inc (startup)** **Aug 2019 – Mar 2020**

- Redesigned all existing websites for cross-device platform and 1k+ records relational database through Agile and Waterfall Model.
- Improved website SQL injection vulnerabilities by implementing server-side script through PHP OOP.
- Implemented a secure payment system for online shopping for 200+ clients across NYC by using Stripe API.
- Reduced website latency by 10% by configuring DNS records and intergrading with Cloudflare DNS.
- Leveraged knowledge in Git, Bootstrap UI, jQuery, Apache Server, MySQL, programmed in PHP using WebStorm IDE, HTML5, CSS3, Ajax, jQuery, Apache JMeter, cPanel, and structured project in MVC.

Full-Stack Web Developer, Vol **The Artists Forum Inc** **May 2019 – Sep 2019**

- Led a team of two developers to redesign an existing website that has 1k+ clients for cross-device platform.
- Transformed all existing server data to a new server, and reconfigured server production environment.
- Implemented email system for administrator and webmaster by utilizing PHPMailer and SocketLab API.
- Reduced website latency by 12% by configuring DNS records and intergrading with Cloudflare DNS.
- Leveraged knowledge in Agile, Waterfall Model, Git, Bootstrap UI, Apache Server, programmed in PHP using WebStorm IDE, HTML5, CSS3, Ajax, jQuery, Apache JMeter, cPanel, and structured project in MVC.

Technical Projects

Personal Website: hchen98.github.io (for additional information and projects)

Cross-Platform Scholarship Recommendation App

- Created a cross-platform app using React Native and Python that allows clients to easily create their profile and get scholarship recommendations.
- Implemented web-scraping for scraping 2.7m scholarship data by using selenium with real-time login.
- Designed RESTful API backend server enabling the integration of React Native and recommendation model.
- Utilized Google Authentication and Firestore API to build user role control module.
- Configured project production environment and deployed recommendation model, RESTful API, and web-scraping application in AWS EC2.
- Utilized: React Native, Git, Python, JavaScript, Firestore, Selenium, AWS EC2, Flask, and RESTful API.

Big Data: MR Movie

- Implemented a movie recommendation model using Cosine Similarity and Spark through the user ratings.
- Analyzed and interpreted recommendation model results by comparing different threshold and co-occurrence threshold value.
- Utilized: Git, Python, Apache Spark, Hortonworks Sandbox, shell script, and numpy.

Linear Regression: Airbnb Open Data (NYC)

- Built linear regression models for Airbnb price prediction by computing all or without all other features.
- Created an interaction density map for the data visualization and analysis through Folium.
- Established feature correlational matrix and importance graph for the data preprocessing.
- Evaluated and interpreted models' prediction results with an MAE of 39%, R2 score of 41%, and RMSE.
- Utilized: Git, Python, scikit-learn, linear regression, Folium, seaborn, Jupyter Notebook, Scipy, pandas, numpy, matplotlib, and RapidMiner Studio.

Autonomous RC Car + Virtual Driving

- Utilized PCA servo driver and Raspberry Pi to control RC car steering speed by integrating Donkey Car API.
- Showcased the project and result at NYIT Ventures' Pitch Contest to faculty and students.
- Collected image data by remotely controlling RC car through wirelessly displaying and operating the camera FOV and direction.
- Trained a supervised classification CNN autopilot model with 11 layers by using image data with Keras for generating a hierarchical file that contains steering and throttle value.
- Utilized: PCA 9685 Driver, Raspberry Pi, Arduino, Python, Keras, TensorFlow, Donkey Car, Flask, 3D Printer.

Skills

- Java, Python, SQL, PHP, PySpark, Hadoop, selenium, AWS EC2, Git, React Native, MySQL, Jenkins, Docker