

Hui (Henry) Chen

DATA SCIENTIST · M.S. IN DATA SCIENCE · NEW YORK INSTITUTE OF TECHNOLOGY

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About Me

Programming	Python · Java · JavaScript · NodeJS · MapReduce · Bash
Analytics	Data cleaning/visualizing · SQL/NoSQL · Hypothesis Testing · Tableau · Access · Excel · R · Hadoop
Tools	Jira · Git · AWS · Docker · Machine Learning · NLP · Deep Learning · Unix/Linux

Work Experience

JobLogic-X Corp.

New York, NY

DATA SCIENTIST INTERN

Feb 2022 - Jul 2022

- Collaborated with cross-functional partners to design and deploy a recommendation engine with computer vision to leverage business metric.
- Assessed the results of Needfinding from 90+ people through a Product Management perspective to identify new products and clients.
- Conducted EDA on the client data with 46 features to investigate trends, outliers, missing data, anomalies, and bias.
- Enriched training data using image augmentation and over-sampling on multiclass XGBoost to achieve **94%** recall.
- Enhanced the recommendation engine by applying unsupervised nearest neighbors to cluster the products through different handcraft features.

New York Institute of Technology

New York, NY

LEAD PROJECT COORDINATOR & GRADUATE ASSISTANT

Sep. 2021 - May 2022

- Showcased and deployed an end-to-end mobile app on a conference implemented and deployed through AWS Lambda, DynamoDB, React Native, and Node.js in order to bring awareness of global native land.
- Scrapped and aggregated 4.2k data from multiple sources and performed data cleaning for analysis and visualization on Tableau.
- Implemented an internal tool to automate the grading and plagiarism checking through Git and JUnit and resulting in **70%** time cut-down.

Projects

IMG CLASSIFICATION: FEATURE SELECTION, DATA AUG, AND TRANSFER LEARNING

Feb 2022 - May 2022

- Analyzed the imbalance data of different handcrafted features (LBP, LBP+PCA, HoG, SIFT) and feature selection (PCA) with SVM for medical diagnosis and facial expressions recognition via GPU acceleration to achieve 93.3% accuracy and **0.93** AUC.
- Built pipelines for image augmentation and fine-tuning to enrich the training data and boost the SVM accuracy by **18.5%**.
- Automated the experiment results tracking of cross-validation and feature engineering using Python, Excel, plotly, Weights & Biases.

JOB SKILLSET SEEKING: DATA VISUALIZATION

Feb 2022 - May 2022

- Built and deployed an interactive data visualization dashboard to better understand the job datasets through R, plotly, and shiny.
- Aggregated data from multiple sources and performed data cleaning to identify the trends.
- Applied spaCy and NLTK tool on job documents to extract keyword data, tokenization, and lemmatization from utility packages to better understand NLP.

SCHOLAR SEEK: SCHOLARSHIP RECOMMENDATION

Feb 2021 - May 2021

- Showcased an end-to-end cross-platform mobile app for students to create their profiles and receive personalized content-based filtering in scholarships, colleges, and majors to the NYIT Engineering Department.
- Implemented an automated tool for scrapping and cleaning **2.7 million** rows of semi-structured scholarship data and 3.5k+ rows of unstructured US-college data by using selenium with anti-captcha and real-time authentication.
- Designed and documented RESTful APIs for the backend server to enable a secured and encrypted token integration of the client-side devices, recommendation models, and MongoDB through Flask and JWT.
- Deployed the backend for production and test environments, testing, and containerized the recommendation models, RESTful APIs, and web scrapings to AWS EC2 through Docker.

NAX: SELF-DRIVING VEHICLE

Feb 2019 - Apr 2019

- Assembled an IoT RC car using a PCA servo driver, Raspberry Pi, and Donkey Car API to control steering speed.
- Showcased the project at NYIT Ventures' Pitch Contest to college faculties and students and won the President Award.
- Collected and trained image data for a CNN autopilot model using physical camera FOV, RC car direction, and simulation software.
- Evaluated and interpreted CNN autopilot model with 11 layers prediction result with 92% accuracy.

Education

New York Institute of Technology

New York, NY

M.S. IN DATA SCIENCE

Sep 2021 - May 2022

- Related Courses: Data Visualization, Computational Statistics, Optimization, Big Data, Machine Learning, Deep Learning

New York Institute of Technology

New York, NY

B.S. IN COMPUTER SCIENCE

Jan 2018 - May 2021

- Related Courses: Data Structure, Probability and Statistics, Data Mining, Information Retrieval, Distributed Database Systems