CHIEN-CHENG (AARON) LAI

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EDUCATION

Master of Chemical and Biomolecular Engineering, GPA:3.46 *Aug. 2017 - Dec. 2018*
Rice University, Houston, TX

Bachelor of Chemical Engineering, GPA:3.17 *Sep. 2011 - Jun. 2015*
National Cheng Kung University, Taiwan

COURSES & SKILLS

Courses: Computer Vision(Matlab), Intro to Database(MySQL), R for Data Science, Intro to Computers(Matlab), Numerical Analysis, Intro to Communication(Network Layer), Calculus I&II, Engineering Mathematics
Professional Courses: Algorithmic Toolbox and Data Structure(Coursera UCSD), Mathematical Thinking in Computer Science(Coursera UCSD), Complete iOS App Development Bootcamp(Udemy), AI for everyone(Coursera)
Languages: Python (2yrs++), Swift, SQL, JSON, R, Matlab, HTML5

WORK EXPERIENCE

Formosa Plastics Corp., Testengeer, Inc. Point Comfort, TX
Chemical Engineer *Mar. 2019 - Present*
- Visualized data and improved analytical model in Total Quality Management Systems database
- Developed data mining and pre-processing APIs for instrument testing data from XRD, FIIR, DSC, HPLC

Applied Optoelectronics, Inc. Houston, TX
Manufacturing Process Summer Intern *Jun. 2018 - Aug. 2018*
- Developed functions to track testing data through Manufacturing Execution System on Microsoft SQL Server
- Analyzed testing results of failure devices and overdue work orders using Transact-SQL

PROJECTS

Department of Computer Science, Rice University Houston, TX
Course Project, Introduction to database *Aug. 2017 - Dec. 2017*
- Built and developed a database of a restaurant through ER model and relational database in MySQL
- Developed algorithms and query to manage and analyze finances, inventory, materials, and sales by data mining
Course Project, Computer Vision *Jan. 2018 - May. 2018*
- Built SIFT and SURF detecting features algorithm to matching visual objects for image transformation and deformation
- Implemented Bag of Features algorithm to classify 292 images into 20 groups with 70% accuracy
Leader of Course Project, R for Data Science *Aug. 2017 - Dec. 2017*
- Visualized causes for car incidents by time, ages, races and location by ggplot, dplyr, sqldf, ggmap and tidyxl

London App Brewery, Udemy
Complete iOS App Development Bootcamp *Dec. 2019 - Jun. 2019*
- Implemented OpenWeahter API and Alamofire to make a live weather app
- Implemented ARKit for making Augmented Reality camera app
- Implemented CoreML & CreateML for making a Machine Learning app to detect the flower genre

RowdyHacks 2020, University of Texas at San Antonio
SuppliesMapForCov19 *Mar. 2019*
- Developed a map website showing who need supplies and who have supplies using Flask, HTML/CSS/JS, Google Map JavaScript API, GCP Firestore, GCP App Engine

Department of Chemical Engineering, National Cheng Kung University Taiwan
Undergraduate Research Student, Professor Chi-Cheng Chiu's Lab *Jul. 2014 - Jun. 2015*
- Utilized molecular dynamics simulations in Linux to investigate the properties of biomimetic bilayers
- Implement Gromacs to simulated bilayers using ion pair amphiphiles (IPAs)