Tony Ren

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EDUCATION

Rice University - Houston, TX

M.S. in Bioengineering, 2018 *Graduate GPA:3.74*

Statistical Machine Learning, Bioinformatics, Numerical Methods, Computational Biology, Instrumentation, Computational Methods

B.S.E in Bioengineering, 2017 *Undergraduate GPA:3.73*

SKILLS

Technical Languages: Python (NumPy, Scikit-learn, Pandas, Scikit-learn, Matplotlib, Jupyter. TensorFlow), R, MATLAB, SQL, Java, C++, VB.NET, Android SDK, HTML, Bootstrap, CSS

Analytics: Machine Learning, Deep Learning, AB Testing, NLP, Data Visualization, Random Forest, Clustering, Regression

WORK EXPERIENCE

Epic Systems Corporation *August 2018 - Present*

Technical Services Engineer

- Developed software utilities to query our internal databases to help clients implement LOINC and SNOMED codes per regulations, speeding up review for requirements by 50%
- Analyzed code to help troubleshoot software and served as a liaison between hospital operational leadership, successfully improving user software usage efficiency by 40% across three different large hospital systems, increasing customer satisfaction ratings by 25%
- Provided design feedback and peer reviewed both functionality and UI design on 10+ software projects for laboratories
- Led direction of development for discrete microbiology HL7 interfacing with Epic Systems with major reference labs such as Quest and LabCorp, fixing a key pain point shared by 100+ of mutual customers
- Taught and mentored clients and new employees to improve their usage of our software, empowering 3 separate teams of 3, 5 and 11 analysts to be self-sufficient experts in the software to manage their own software systems
- Deployed new use of our software in two separate hospital systems, assisting with 10+ successful deployments for the lab

Blumio *January 2018 – May 2018*

Data Intern

- Developed data pipeline for analyzing heart rate data to identify various potential models for successful grant applications
- Performed exploratory data analysis to look for quantifiable trends using Python, kNN modeling, random forest classifications, and machine learning with 80% accuracy in predicting future test data

Memorial Sloan Kettering Cancer Center *May 2016 – August 2016*

Research Intern

- Pioneered the use of R to help process 100+ dimensional data sets of patients for prostate cancer clinical trial eligibility and to evaluate clinical trial results, expediting drug and screening test development in the lab
- Developed data pipeline to identify samples for sale, resulting in $2M dollars of revenue from sales in a 2 week timespan, offloading the entire team's workload for the month

Texas Children's Hospital *May 2015 – August 2015*

Research Intern

- Performed statistical analysis using R on a 1000+ dimensional database mRNA and miRNA expression data to elucidate the mechanisms behind the cancer, utilizing clustering and regression to model data and discovering a novel miRNA pathway

PROJECTS

Personal Website *January 2022 – Present*

- Developed personal website utilizing Python, Flask and Freezer with Bootstrap, HTML, and CSS

Small Business Application – Backend Project *June 2020 – August 2020*

- Created backend automation for accounting systems utilizing C# and the Intuit Quickbooks API improving times for accounting by over 50%

2018 Data Science Bowl (bronze medal) *Kaggle Competition* *March 2018 – April 2018*

- Performed exploratory data analysis to explore AI-vision driven segmentation tasks to identify model direction
- Developed and tuned machine learning model using Python, Google CoLabs, TensorFlow, NumPy and Pandas to analyze cell nuclei based on image segmentation, achieving bronze medal status for a Mask-RCNN ensemble deep learning model

Computational Modeling Project *August 2014 – December 2014*

- Created a computational model of the lungs as lead programmer on a team of 8 to facilitate medical device development

Full Stack Design Project – Android Application *January 2014 – May 2014*

- Led the design and programming team for a mobile wardrobe application on Android for Down Syndrome children, serving as the primary programmer for the application architecture, camera functionality, and graphical user interface, creating a working Android application within one semester using Java and the Android SDK
- Constructed SQLite databases to store and load data to successfully integrate with the Android application