Robin Ronson

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EDUCATION

TEXAS TECH UNIVERSITY
BS in Computer Science
December 2018 | Lubbock, TX
College of Engineering
GPA: 3.9 / 4.0

LINKS

Github:// **robrons**
LinkedIn:// **robinronson**
Portfolio:// **robrons.github.io**

COURSEWORK

Data Structures and Algorithms
Operating Systems
Intro. to Artificial Intelligence
Bioinformatics
(Research Asst.)
Machine Learning
(Special Topics in CS)
Theory Of Automata
Discrete Computational Structures

SKILLS

PROGRAMMING

Proficient:
Java • Python • HTML • CSS • JavaScript

Familiar:
C • C++ • Assembly • LaTeX• Bash

Frameworks and tools:
Android Studio• MySQL • ReactJS • Unix • MongoDB • REST • Redux

CONFERENCES

DMTF Technical Symposium
Topic: Performance gains in Redfish Conformance Checker Tool

DISCL Research Seminar
Topic: Upcoming speaker on RESTful API testing and inference

EXPERIENCE

TEXAS TECH HPCC | Student Software Developer
Jan 2018 - Present | Lubbock, TX

- Incremental development of a Python-based, API-driven test automation tool for **Redfish®**
- Developed a caching mechanism to store HTTP GET requests using JSON serialization, resulting in a ≈ 50x speed improvement over the existing tool
- Rebuilt the tool's log representation feature using Angular and Material Design, which led to the easier identification of assertion failures

RESEARCH

TTU BIOLOGICAL SCIENCES DEPARTMENT | Researcher
May 2017 – Present | Lubbock, TX

- Working with **Prof. Amanda M.V. Brown** to create **DNAngler**, a Java pipeline allowing users to predict trajectories of infectious diseases
- Reduced the dimensionality of DNA under mutagenesis dataset using t-SNE, resulting in a clarified visualization of malignant metastasis with TensorBoard
- Wrote Bash script for constructing a 2D matrix of allele frequency vs. point mutation for transition analysis

PROJECTS

FREEZE-B-GONE | Temperature Monitoring PWA

- Utilized ReactJS and Redux for building the Front-end side of a web application that monitors temperature near water pipes
- Set up push notifications using service worker API for vital freeze warnings
- Established WebSocket connection between the web app and server for real time monitoring of the temperature registered by the Raspberry Pi device

GRATIS-SPOT | WiFi Hotspot Tracker

- Queried Socrata Open Data API, resulting in a 20% increase in detection of free public WiFi coordinates, in comparison to current standards
- Implemented Bucketing to find the nearest hotspots along a 5 mile radius based on the GPS data

SELF-DRIVING SIMULATION | Neural Network

- Developed a self-drving car model based on convolutional neural network with 27 million connections and 250 thousand parameters
- Used Keras on top of Tensor Flow as the machine learning API
- Accelerated training the model with steering angle and car camera datasets using Cloud TPU

IMAGE SEGMENTATION | Unsupervised Learning

- Used K-means for replacing each pixel with its nearest cluster centroid color resulting in a 30% size compression
- Applied partial contrast stretching in order to improve the image quality
- Median filter was applied to the segmented image to remove any unwanted noise or region