

Robin Ronson

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EDUCATION

TEXAS TECH UNIVERSITY

BS IN COMPUTER SCIENCE
December 2018 | Lubbock, TX
College of Engineering
Cum. GPA: 3.9 / 4.0

UNITED INDIAN SCHOOL

Grad. May 2014 | Jleeb Al-Shuyoukh,
Kuwait

LINKS

Github:// [robrons](#)
LinkedIn:// [robinronson](#)
Portfolio:// [robrons.github.io](#)

COURSEWORK

UNDERGRADUATE

Structures and Algorithms
Operating Systems
Intro. to Artificial Intelligence
Bioinformatics

(Research Asst.)

SKILLS

PROGRAMMING

Proficient:

Java • Python • CSS • HTML

Familiar:

C • C++ • Assembly • JavaScript • \LaTeX • Bash

Frameworks and tools:

Android • MySQL • ReactJS • Unix • MongoDB • REST • Redux

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 $\approx 50x$ 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 **DNAngher**, a Java pipeline used to iteratively improve phasing of strains from complex cellular assemblages, allowing users to measure evolutionary forces and predict trajectories of infectious diseases.
- Reduced the dimensionality of the 12 dimensional dataset of mutagenesis using t-SNE
- Visualized the dataset with the Embedding Projector included in TensorBoard

PROJECTS

FREEZE-B-GONE | MONITORING PROGRESSIVE WEB APPLICATION

- Set up push notification using service worker API for vital freeze warnings.
- Used websockets for real time monitoring of the temperature register by the Raspberry Pi device.
- Utilized ReactJS and Redux for building the Front-end side of the web application in a team of 4.

GRATIS-SPOT | WiFi HOTSPOT TRACKER

- Queried Socrata Open Data API on free public WiFi coordinates, resulting in a 30% increase in tracking in comparison to current standards.
- Implemented Bucketing to find the nearest hotspots along a 5 mile radius based on GPS data.

SELF-DRIVING SIMULATION | NEURAL NETWORK

- Developed a self-driving car model based on convolutional neural network with 27 million connections and 250 thousand parameters.
- Used Keras on top of Tensor Flow as our 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 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.