

MICHAEL KASMAN

Undergraduate Researcher

Dallas, TX

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EDUCATION

B.S. Computer Engineering

The University of Texas at Dallas

August 2018 - Present

Richardson, TX

Calculus I, II, III • Differential Equations • Linear Algebra • Probability & Statistics
• Computer Science I, II • Data Structures and Algorithms

WORK EXPERIENCE

Undergraduate Researcher

The University of Texas at Dallas

May 2019 - Present

Richardson, TX

Achievements/Tasks

- Researched the variance of human-centric metrics between virtual reality simulation and physical dry-lab exercises in robotic surgical training under Dr. Ann Majewicz Fey
- Pre-processed and analyzed data in a Linux environment using **Pandas** DataFrames, **Seaborn**, and **Pingouin** in **Jupyter** Lab to visualize analysis of variance (**ANOVA**)
- Publishing work to the Journal of Medical Robotics Research for special issue: Technology-enabled Tools for Clinical Skills Assessment

Clark Foundation Summer Research Scholar

The University of Texas at Dallas

June 2018 - August 2018

Richardson, TX

Achievements/Tasks

- Developed and administered a mobile indoors navigation app, Constellation, for the UT Dallas campus by collaborating with undergraduate researchers and principal investigator, Dr. Ravi Prakash
- Created **PHP** scripts to receive HTTP requests from the client and acquire the requested path coordinates and user location from **ArcGIS** and **Cisco CMX**
- Accomplished Constellation 1.0, measured by 50+ successful consecutive tests in navigating a path between rooms, through frontend and backend communication

Software Engineering Intern

S.T.E.A.M. Achievers

September 2017 - May 2018

Dallas, TX

Achievements/Tasks

- Frontend development using **HTML 5**, **CSS 3**, and **JavaScript** for the design and function of the S.T.E.A.M. Achievers Hackathon website
- Backend development using **PHP** and **SQL** to update the MySQL database and the upload of apps
- Educated 150+ participants, ages of 12 - 18 years old, to develop a web app in the web-development hackathon workshop

PUBLICATIONS

Michael Kasman, Ziheng Wang, Marco Martinez, Robert Rege, Herbert Zeh, Daniel Scott, and Ann Majewicz Fey. A Comparative Human-Centric Analysis of Virtual Reality and Dry Lab Training Tasks on the da Vinci Surgical Platform. *Journal of Medical Robotics Research: Special Issue on Technology-enabled Tools for Clinical Skills Assessment*, Accepted with Minor Revisions.

SKILLS

Bootstrap

MySQL

OpenCV

Cloud

Linux

Pandas

Matplotlib

NumPy

SciPy

LaTeX

Keras

Tensorflow

HTML 5/CSS 3

Python

PHP

JavaScript

Java

C/C++

Proficient

Intermediate

Intermediate

Intermediate

Intermediate

Intermediate

PROJECTS

Flare 

- A React Native mobile application that analyzes the victim density level after a natural disaster from drone/bird-eye viewed images using deep learning

Constellation Mobile Indoors Navigation App 

- An Android mobile indoors navigation app capable of location tracking and path-finding between rooms on the UT Dallas campus

Smart Rates 

- A React Native mobile and web app that analyzes the real-time market suggested retail price of cars using the **Smart Car API**

FastPass 

- A React Native mobile app that verifies the boarding pass information of American Airlines passengers through the **Microsoft Azure Facial Recognition API**

EagleEye 

- A React Native mobile app that notifies government officials about infrastructure issues

ACHIEVEMENTS

2020 Jonsson School Undergraduate Research Award

Awarded \$500 for medical robotics research at the University of Texas at Dallas

2017 cPanel & FreeCodeCamp Hackathon 1st Place

Awarded 1st Place for the best mobile app, GreenView, out of 50+ other competitors

2017, 2015, 2014 Dallas BEST Robotics Engineering Design Award

Awarded for the best robotics engineering and programming design among 40+ other schools

Better World Fund & UNA-USA Thank a Peacekeeper (TAPK) Campaign Award

Awarded a grant for heading the TAPK campaign at the Dallas Area Model United Nations Conference: delivered 300 complete TAPK cards