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 Algorithims

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

Kasman, M., Wang, Z., Martinez, M., Rege, R., Zeh, H., Scott, D., and Fey, A.M., "A Comparative Human-centric Analysis of Virtual Reality Simulation and Physical Dry Lab Exercises in Robotic Surgical Training," Journal of Medical Robotics Research. (under review)

SKILLS

Bootstrap | MySQL | OpenCV | Cloud | Linux | Pandas | Matplotlib | NumPy | SciPy | LaTex | Keras | Tensorflow

HTML 5/CSS 3	**Proficient**
Python	**Intermediate**
PHP	**Intermediate**
JavaScript	**Intermediate**
Java	**Intermediate**
C/C++	**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

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