**ARJUN RAMESH**

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**EDUCATION**

***The University of Texas at Austin***  *Graduation*:***May 2021***

*Bachelor of Science, Electrical and Computer Engineering (Honors) Cumulative GPA*: ***4.00***

*Relevant Coursework*: Comp Arch, Algorithms, Embedded Sys., Real-Time DSP, Digital Logic, OS (Spr 2020)

**SKILLSET**

**Technical:** Experienced with Linux,Python, C/C++, SystemVerilog, Arm Cortex-M Assembly , Ruby, Keras/Tensorflow

**Certificates:** Machine Learning by Andrew Ng (Coursera), Android App Development (CMS IT Services)

**Languages:** Fluent in English and Tamil

**Co-curricular:** High-Altitude Trekking, Badminton, Piano, Guitar, Speedcubing (Club and National Level [Profile](https://www.worldcubeassociation.org/persons/2014RAME04))

**WORK EXPERIENCE**

**Undergraduate Teaching Assistant** – *UT Austin, ECE* | Austin, TX *Aug 2018 – Present*

* TA for Introduction to Computing (EE 306) under ***Dr. Yale Patt*** and Embedded Systems (EE 319K).
* Responsible for holding **review sessions and office hours** as well as designing assignments and grading.

**Design and Verification Intern**– *Centaur Technology Inc.* | Austin, TX *May 2019 – Aug 2019*

* Created a **real-time debugging tool** in *Python* to produce visualizations of live chip performance on the ELK stack.
* Tested and debugged future Intel ***AVX-512*** instructions using a *x86-Ruby DSL* from 4 CPUID feature flags for new chip.

**Software Engineering Intern** – *Qube Cinema Inc.* | Chennai, India *Jun 2018 – Aug 2018*

* Worked on ***iCount*** - a commercial product to count the seat occupancy in theaters around the country.
* Reworked the deep neural network trainer completely in *Keras*, using the state of the art ***ResNet50*** model.

**Machine Learning Intern** – *Lucid Imaging Pvt. Ltd.*|Bangalore, India *Jun 2018 – Aug 2018*

* Trained the ***VGG-16*** deep learning model in *Keras* to eject polypropylene in fast-flowing industrial cotton.
* Achieved a **96%** total accuracy with a **100%** on positive samples with minimal and imbalanced training data.

**ACADEMIC PROJECTS**

**Home-Unity** –*HackDFW (Fort Worth, TX) Feb 2019*

* Designed a **data visualization web platform** for the City of Dallas to better serve the homeless and *(Team of 5)* a **mobile app for the homeless** to receive notifications about city provisions from shelters in real-time.
* Received **1st** place from the *City of Dallas* and *OmniSci*. Link: <https://devpost.com/arjunramesh>

**RecycleMe** –*HackTX (Austin, TX) Oct 2018*

* Created an app to **classify waste** as recyclable, compost, or landfill using Azure’s machine learning model. (*Team of 4)*
* Received **2nd** place from ***TeacherTalent*** for best education hack*.*

**Texas CreateAThon 2018 and 2019** –*UT Austin**Mar 2018 and 2019*

* *2018*: Engineered the *ChairIOT*– a **self-organizing chair** that moves back into the table after its use. *(Team of 5)*
* *2019*: Engineered the *RecycleMe* – a **smart trash-can** that classifies and segregates trash into respective bins.
* Funded completely by *Schlumberger* and built the models in 72 hours.

**Stick Fighter! (Embedded System Video Game**) –*UT Austin Apr 2018*

* Two-player stick fighting game made from scratch using *Tiva-TM4C Microcontroller*. *(Team of 2)*
* Assembled our own controllers with joysticks, added sound/music, and included ***real-time layering of graphics***.

**HONORS AND SCHOLARSHIPS**

***Centaur Technology Scholarship***on completion of *Summer 2019* internship *Fall 2019*

***Ray Fisher Memorial Scholarship*** from *Texas Exes Fall 2019*

***University Honors*** for *4 semesters* *Fall 2017 - Spring 2019*