

ARJUN RAMESH

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EDUCATION

The University of Texas at Austin

Bachelor of Science, Electrical and Computer Engineering (Honors)

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

Graduation: May 2021

Cumulative GPA: 4.00

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](#))

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 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