

Mitchell Che

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Education

The University of Texas at Austin

May 2020

Bachelor of Science in Mechanical Engineering
GPA - 3.45/4.00

Texas Academy of Mathematics and Science

2014 - 2016

Two-year residential early entrance college program focused on STEM education
GPA - 3.80/4.00

Projects

Top Song Guesser – mitchellche.com/topsong

Summer 2020

- Developed web application using Node.js to get top song data from Spotify's charts for a browser guessing game
- Fetched additional data from Spotify's API with OAuth 2.0 authentication methods
- Deployed using an AWS Elastic Beanstalk environment with connected GitHub continuous deployment pipeline

UTME Sensor

Spring 2020

- Designed a multiwavelength temperature sensor for implementation in UT's selective laser sintering (SLS) additive manufacturing machines
- Researched and developed concept solutions to improve upon existing technology by reducing error from variable emissivity
- Created 3D CAD model using parts sourced per sponsor's budget and specifications

3D Food Printer

Fall 2019

- Designed, modeled, and fabricated fully functioning budget 3D printer to convert G-Code into extruded icing patterns
- Identified and analyzed customer needs for a design specification sheet
- Collaborated with team members and utilized concept generation methods such as 635, Mind mapping, & Pugh charts to streamline & optimize design process

RC Car Build Team

Spring 2018

- Applied engineering analysis to calculate safety factors of desired designs
- Analyzed structural integrity of preliminary car models using finite element analysis on SolidWorks to identify potential faults and possible improvements
- Designed, modeled, and 3D printed individual parts

Work

Instructor at Mathnasium of South Austin

2017 - 2019

- Worked with students grades 1-12 and taught math concepts with an approach specifically catered to each individual student
- Participated in special training and workshops to develop effective communication and teaching skills

Additional Information

Computer Skills: Python, HTML, CSS, JavaScript, Git, Java, MATLAB, SolidWorks, LabVIEW, Microsoft Office
Languages: English, Mandarin, conversational Japanese and Spanish
Eligibility: US Citizen