

# James McNaney

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## SKILLS

### EXPERIENCE

Python, C, Assembly, MatLab, Code Composer Studio, Energia (Launchpad), Vivado (Xilinx), LaTeX, LabView, Soldering

### DEVELOPING

HTML, Magic Layout Editor, IRSIM, Modelsim, Cadence (Encounter), HSpice & LTSpice, Verilog, Linux, Synthesis

## EDUCATION

### RICE UNIVERSITY

PURSUING B.S. IN ELECTRICAL

ENGINEERING

Projected Grad. May 2020 | Houston, TX

### PINE TREE HIGH SCHOOL

Grad. June 2016 | Longview, Texas  
Valedictorian: class of 297

## EVALUATIONS

University Cum. GPA: 3.89

High School GPA:

Weighted: 4.9

Unweighted: 4.0

SAT: 2130

ACT (Plus Writing): 34

## RELEVANT COURSEWORK

### ENROLLED SPRING OF 2018

Fundamentals of Electrical Engineering II  
Intro to Physical Electronics  
VLSI Design

### COMPLETED COURSES

Fundamentals of Electrical Engineering I  
Intro to Electronic Materials  
Fundamentals of Computer Engineering  
Physics: Electricity and Magnetism  
Digital Logic Design  
Computational Thinking

## PROJECTS

### CURRENT

- Developing an original VLSI microcontroller to simulate a cellular automata using CAD tools. Mask Design (CIF/GDSII file) will be simulated and integrated into a padframe ready for MOSIS fabrication (chip tested in the Fall of 2018).
- Working in a lab with circuit components and control systems which will be combined in the design of a Haptic Paddle Driver.

### PAST

- Constructed a functional Electromyogram (EMG) which utilized skills in signal acquisition and amplification as well as basic DSP.
- Completed multiple soldering kits including a TV-B-Gone.
- Designed and assembled a computer with watercooling and overclocking capabilities.

## ACCOLADES

### RICE UNIVERSITY

- President's Honor Roll
- Conference USA Commissioner's Academic Medal
- Conference USA Commissioner's Honor Roll

### HIGH SCHOOL

- National Honor Society President
- Commended National Merit Scholar
- TASSP Region VII Outstanding Senior Award
- Texas Scholar with Merit
- College Board AP Scholar with Distinction
- College Board National AP Scholar (Average score of at least 4 on all AP Exams taken, and scores of 4 or higher on 8 or more AP exams)

## EXTRA-CURRICULARS

2016-Present	Polevaulter	Rice's Track & Field Team
2012-2016	Polevaulter	PTHS Varsity Track Team
2012-2016	Volunteer	Rice-Harvey Action Team (R-HAT)
2015-2016	Competitor	TSA TEAMS Engineering Competition
2012-2016	UIL/TMSCA	Number Sense, Calculator, Math, Science
2012-2016	Tutor	Math and Science-based classes
2013-2016	Mentor	Junior High Polevaulters
2014-2016	Pianist	PTHS Jazz Band
2009-2014	Clarinetist	Marching Band and Wind Ensemble
2014-2016	Manager	Cross Country
2013-2014	Runner	Cross Country