# Alex Anderson

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## Academics

## Experience

Undergraduate Research Assistant, *Texas A&M University* ........... 08/2022 - Present Analog and Mixed Signal Center: S. Palermo

- Design, verification, and measurement of a radiation-hardened optical transceiver in 180nm CMOS.
- Undergraduate thesis under University Research Scholars (URS) program.

- Created internally and externally published documentation over TI family of USB 2.0 redrivers.
- Provided support, review, and debugging for customer designs and layouts.
- Obtained lab measurements, compliance reports, and eye diagrams for redrivers, retimers, muxes.

- Developed unique experiments and testing schemes using group testing theory.
- Performed designed pooling experiments in a laboratory setting.
- Extensive simulation design in Python using packages including Scipy, Numpy, Matplotlib, Seaborn.

#### Publications and Presentations

J. Molina, A. Anderson, S. Dixon, K. Narayanan, and S. Pillai, (2022). A Single Stage Pooling Scheme for Large-Scale Pathogen Detection. Manuscript in preparation.

**A. Anderson** and S. Dixon. Group Testing for Food Safety. Poster presented at: Student Research Week, College Station, TX (2022).

#### Skills

Software Cadence Virtuoso, OrCAD, Allegro, LabVIEW, Linux, LATEX

**Programming** MATLAB, Python, C++ , HTML/CSS/Javascript

Lab Tools Oscilloscope, Multimeter, Function Generator, Soldering

## Honors and Awards

Texas A&M Engineering Honors, College of Engineering 08/2019 -	Present
Dean's Honor Roll, College of Engineering 05/2020, 12/2020,	05/2022
McFadden Scholarship, $Texas \ A \& M \ University \ \dots $	08/2019
Eagle Scout, Boy Scouts of America	12/2016