# Alex Anderson

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Dallas, TX • Résumé current as of December 12, 2022

### 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

Y.-L. Luo, C. Hong, A. Anderson, D. Dolt, and S. Palermo, "A Radiation-Hardened Optical Transceiver in 180nm CMOS Technology," accepted in 2023 Government Microcircuit Applications and Critical Technology Conference.

J. Molina, A. Anderson, S. Dixon, K. Narayanan, and S. Pillai, "A Single Stage Pooling Scheme for Large-Scale Pathogen Detection," submitted to *Journal of Applied and Environmental Microbiology*.

**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, $Texas \ A \& M \ University$	08/2019
Eagle Scout, Boy Scouts of America	12/2016