



Mitchell Ament

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Skills

- C++,
- Python
- Clean coding practices
- MATLAB
- Debugging
- Standard Hardware Protocols (pcie, spi, i2c)
- Signal Processing
- UNIX/Linux

Experience

RESEARCH ASSISTANT, UT DALLAS; DALLAS, TX – SEPTEMBER 2019-PRESENT

- Work in C++, Matlab, and Python to process signals from a multi-satellite array.
- Created conversion program from messy format comprising all signals and correlations separated by individual headers into streamlined format containing single datasets with compressed representation
- Optimized program to run on large datasets rapidly by implementing matrix operations and existing MATLAB functions

RESEARCH ASSISTANT, UT ARLINGTON ZHOU LAB; ARLINGTON, TX – MAY 2017-AUGUST 2017

- Performed Variable Stripe Measurement of gain material developed in the cleanroom
- Identified the differences between noise and true measurements

RESEARCH ASSISTANT, UT DALLAS NANO-PHOTONICS LAB; DALLAS, TX – JANUARY 2017-MAY 2017

- Participated in measurement of communication wavelength MR-VCSELs and PCSELs

Education

The University of Texas at Dallas, Dallas, TX – Pursuing B.S. of Electrical Engineering, Anticipated Graduation: May 2021

SENIOR ENGINEERING CAPSTONE DESIGN PROJECT:

- Project Scope: Worked in a seven member team to create a wireless relay and roll jam system for a corporate sponsor. Collected and analyzed RF data to determine vulnerabilities in packet structure and monitor system RF component efficiency. Assessed functional requirements, developed code for roll jam attack system and assisted with design of filter.

- Tools: VS Code, GNU radio, SDRSharp, Inspectrum, RFcat, C++, Python, HackRF one, Yardstick one

RELEVANT COURSES

Electronic Devices, Signals & Systems, Digital Circuits, Electronic Circuits, Electric Network Analysis, Systems & Controls, Communication Systems

References upon request