Pranavi Boyalakuntla

Electrical and Computer Engineer
Please use my contact page.

https://pranavi.space
Github: naviatolin

EDUCATION

Stanford University   Palo Alto, CA
M.S. Electrical Engineering   SEP 2022 - MARCH 2024

- Focus in signal processing, control, and optimization
- Courses: Imaging Radar and Applications, Perceptual Audio Coding, Signal Processing for ML, Principles of Sensing for Autonomy

Franklin W. Olin College of Engineering   Needham, MA
B.S. Electrical and Computer Engineering   SEP 2018 - MAY 2022

- Olin College Half Tuition Merit Scholarship (2018 - 2022)
- Courses: Wireless Communications, Software Systems, Computer Architecture, Analog to Digital Communications

EXPERIENCE

Meter   San Francisco, CA
Platform Engineering Intern   JUN 2023 - SEP 2023

- Added Go RPCs to the wireless operating system to blink lights on access points to aid network installers and onsite team
- Designed Grafana boards and patched operating systems across access points and controllers to track operating system metrics

Intern   JUN 2022 - SEP 2022

- Improved automated Access Point programming rig with Slack/Airtable integration along with programming verification
- Designed automated testing framework with Python and Robot Framework

Olin Satellite + Spectrum Technology & Policy Group (OSSTP)   Needham, MA
Research Assistant   JAN 2021 - PRESENT

- Designed link budget analysis tool in Python to calculate and validate link budgets and perform interference analysis
- Lead team analyzing FCC Auction 107 (C-band) data for a lab corporate partner
- Developed content for Olin College Principles of Wireless Communications course and textbook
- Iterated on an Antenna Control Unit (ACU) design for Mangata Networks
- Validated interference mitigation compliance from satellite mega-constellations (OneWeb, Telesat, SpaceX) using I/N metrics

Promaxo   Oakland, CA
Systems Engineering Intern   JUN 2019 - AUG 2019

- Lead team automating mm-precise collection of magnetic field measurements for image reconstruction
- Created an API to communicate with Festo motor controllers using Modbus communication protocol
- Built and debugged a programmable logic controller (PLC) to handle the logic of the Promaxo MRI
- Contacted manufacturers to source parts for electrical research and development

Dassault Systèmes: SolidWorks   Waltham, MA
Fabrication Laboratory (FABLAB) Intern   JUN 2017 - AUG 2017

- Obtained certification as a SolidWorks Associate in Mechanical Design (CSWA)
- Developed company Arduino guide to introduce non-technical employees to the FABLAB and the electronics station

AWARDS

- Clare Boothe Luce Research Award (2021-2022)
- Massachusetts Space Grant Undergraduate Research Award (Summer 2021, Fall 2021)

PUBLICATIONS

- Boyalakuntla, P., Goldwater, M., Gupta, U., Lohmeyer, W.Q., Govindasamy, S., An Undergraduate-level, Problem-based Introduction to Orthogonal Frequency-Division Multiplexing, IEEE Frontiers in Education (FIE), Uppsala, Sweden, 8 - 11 October 2022.
- Boyalakuntla, P., Lohmeyer, W.Q., and Govindasamy, S., "OFDM Overview", Principles of Wireless Communications, (In Publication).

SKILLS

Hardware		Software		Other	
• KiCAD	• SolidWorks	• Python	• Go	• Soldering	• Technical
• SDR	• OnShape	• C	• Git	• Data Science	Writing
• LTSpice	• Prototyping	• MATLAB	• C++	• Figma	• Agile Scrum