

ZACHARIAS KOMODROMOS

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EXPERIENCE

Graduate Research Assistant

University of Texas at Austin

📅 Fall 2021 – Present

📍 Austin, Texas

- Member of WNCG Radionavigation Laboratory run by Prof. Todd Humphreys
- Research in game-theory for Pursuit-Evasion scenario
- Research in opportunistic PNT from Starlink Satellites
- Teaching assistant for Aerial Robotics class ASE 479W

GPS and Navigation Intern

MITRE

📅 Summer 2023

📍 Bedford, MA

- Analyzed, modeled, and simulated a signal lock detector
- Integrated and tested the implementation on GNSSTA (C++ based project)
- Explored and developed post-processing tools in matched spectrum jamming

Design Engineer Intern

Garmin

📅 Summer 2021

📍 Olathe, Kansas

- Used Cadstar for schematic revision and PCB design
- Designed PCB for new feature testing (capacitive touch features)
- Designed PCB for High-speed (USB 3.2) testing

Teaching Assistant/Tutor

Iowa State University

📅 Fall 2019 – Spring 2021

📍 Ames, Iowa

- Teaching assistant for EE330 Integrated Circuits during Fall 2020 and Spring 2021, under Dr. Randall L. Geiger and Dr. Degang Chen.
- Led lab sections, constructed and graded homework and labs
- Tutor for Academic Success Center for EE201 and EE230 Circuit analysis classes

SKILLS

Matlab

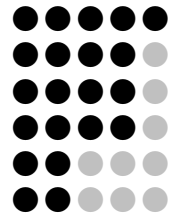
C, C++

Bash Scripting/Linux

Python

Java

Altium Designer, Cadstar



EDUCATION

MSc and PhD track

University of Texas at Austin

📅 Fall 2021 – Present

BSc Electrical Engineering

Minor in Computer Science

Iowa State University

📅 Fall 2017– Spring 2021

- Summa Cum Laudem with Honors
- Communications track

PAPERS

Related Work

- T.E. Humphreys P. A. Iannucci, Z. M. Komodromos and A. M. Graff (Under Review). "Signal Structure of the Starlink Ku-Band Downlink". In: *IEEE Transactions on Aerospace and Electronic Systems*.
- Komodromos, Zacharias M, Wenkai Qin, and Todd E Humphreys (2023). "Signal Simulator for Starlink Ku-Band Downlink". In.
- Z. M. Komodromos N.G. Montalbano, T.E. Humphreys (2022). *Quasi-Nash Optimal Algorithm for Reach and Avoid Differential Game*. Tech. rep. UT Austin, Radionavigation Laboratory.

INTERESTS

- Low Earth Orbit (LEO) Communications
- Digital Communications
- Position, Navigation and Timing
- Estimation