BENJAMIN KAI JONES

676 Nissa Court, Auburn, AL 36830

bkj0005@auburn.edu – 901-219-3263

EDUCATION

Auburn University — May 2020 - December 2022

Master of Science in Mechanical Engineering — *Auburn, AL*

- · GPA: 4.0
- · **Master's Thesis**: Collaborative Architectures for Relative Position Estimation of Ground Vehicles with UWB Ranging and Vehicle Dynamic Models

Mississippi State University — August 2016 - May 2020

Bachelor of Science in Mechanical Engineering — *Starkville, MS*

- · GPA: 3.97, Summa Cum Laude

RELEVANT COURSEWORK

Fundamentals of Navigation, Optimal Estimation and Control, Fundamentals of GPS, Nonlinear Systems and Control, Software for Sensors, Advanced Dynamics, Machine Learning

CONFERENCE PRESENTATIONS

Jones, B., et al. "Utilizing a Vehicle Dynamics Model for Ground-Vehicle Relative Position Estimation with UWB Ranges," Modeling Estimation and Controls Conference (MECC), Jersey City, New Jersey, 2022.

EXPERIENCE

Radiance Technologies — January 2023 - Present

PNT Engineer — *Huntsville, AL*

- · Assisting with start up of Positioning, Navigation, and Timing laboratory
- · Contributing to a small team exploring resiliency methods for PNT

Auburn University GPS and Vehicle Dynamics Laboratory — May 2020 - December 2022

Graduate Research Assistant — *Auburn, AL*

- · Research and develop navigation and estimation algorithms within MATLAB, C++, and ROS
- · Implemented a real-time relative position estimation algorithm for autonomous vehicle convoys without a GPS reference
- · Experienced in Kalman filtering with GPS, IMUs, Ultra-wideband radios, and vehicle models in both simulation and hardware
- · **Projects**: Multi-agent collaborative aerial navigation, IMU on-line alignment and calibration, range-only relative position estimation

CFD Research Corporation — May - August 2019

Engineering Intern — *Huntsville, AL*

- · Developed and delivered a coherent testing environment for industry customer
- · Solved trajectory and radar integration within MATLAB and Simulink
- · Assisted ongoing development of hypersonic analysis tool within Modern Fortran and Python

TECHNICAL STRENGTHS

Active Security Clearance (Secret)

Programming Languages — MATLAB, C++, Python

Software — GIT, Robot Operating System (ROS), SOLIDWORKS, Abaqus