

FREDERICK LÜTHCKE

Aerospace Engineer and Head of Project Goal Oriented - Pragmatic - Flexible

www.pushluethcke.com luethckef@gmail.com +49 (151) 6460 1006

Objective To obtain a full-time position as head of project

Work Diehl Defence GmbH & Co. KG Experience **Head of Project GBAD Export**

- Available upon request
- ✓ Available upon request

Industrieanlagen Betriebsgesellschaft (IABG) mbH

Analyst – Naval Systems

- ✓ Available upon request

Eagle Flight Research Center - ERAU **Engineering Research Intern**

Creating and implementing telemetry data feed for MarkII UAV

✓ Designing and running experimental procedure for data validation, including wind tunnel use

✓ Writing documentation for completed work and tasks ranging from installation to wind tunnel use. Contact: Vinod Gehlot – vgehlot @utsi.edu

Education Embry-Riddle Aeronautical University

> **Master of Science, Aerospace Engineering** Area of Concentration: Dynamics & Control

Embry-Riddle Aeronautical University

Bachelor of Science, Aerospace Engineering

Area of Concentration: Aeronautics

Orbital Mechanics – Class AE595Y **Project**

High Fidelity Orbit Propagator Experience

Develop 2-body gravitational equation to include perturbation from J terms and aerodynamics

✓ Propagate orbits for 1000 satellites simultaneously in MATLAB

Optimize performance by utilizing parallel computing including GPU computing

Contact: Prof. Troy Henderson – Troy.Hernderson1@erau.edu

Guidance, Navigation and Control – Class AE623

IMU Based Attitude Estimation

✓ Setup data collection using Quanser robotic arm, iPhone IMU and MATLAB/Simulink

✓ Create 4 different Kalman Filter approaches and compare their performance

✓ Evaluate and present performance based on error and mean error signals Contact: Prof. Hever Moncayo – Hever.Moncayo@erau.edu

Skills Engineering Software: MATLAB, Simulink, CATIA, DATCOM, XFOIL

> Office: Word (Intermediate), Excel & VBA (Intermediate),

> > PowerPoint (Intermediate)

German (native), English (native), Spanish (basic) Languages:

Ottobrunn, GER

Überlingen, GER

April 2021 – present

Aug. 2018 - Mar. 2021

Daytona Beach, USA

Apr. 2016 - Mar. 2017

Daytona Beach, USA

May 2018 GPA: 4.00/4.00

Daytona Beach, USA

Dec. 2016 GPA: 3.59/4.00

Jan. 2018 – May 2018

Aug. 2017 – Dec. 2017