



Yongxu Duan

MSc.

Check my Homepage <https://dyx1994.github.io/> for more information.



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dyx1994.github.io



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SKILLS

Python

MATLAB

C/C++

MEMS

GNSS/INS

IMU

Geomatics

Office

Raspberry Pi

Git

RTKlib

ArcGIS

Embedded system

LANGUAGES

Mandarin

Native or Bilingual Proficiency

English

Full Professional Proficiency

German

Limited Working Proficiency

INTERESTS

Basketball

Football

Taichi

Running

Painting

Travelling

Photography

EDUCATION

MSc. Geomatics Engineering

University of Stuttgart

09/2017 - 02/2020

GPA: 2.1/1.0(good)

Courses

- Satellite Navigation, Integrated Positioning and Navigation, Computer Vision, Pattern Recognition, Remote Sensing, Dynamic System Estimation etc, Statistical Inference, etc.

BSc. Geomatics Engineering

China University of Mining and Technology (Beijing)

09/2013 - 07/2017

GPA: 82/100 (good)

Courses

- Satellite Navigation and Positioning, Cartography, Photogrammetry, Engineering Surveying, Remote Sensing, Geoinformation, Linear Algebra, etc.

WORK EXPERIENCE

Geomatics Project Engineer

Shanghai Investigation, Design and Research Institute Co., Ltd.

10/2021 - Present

Shanghai

A part of China Three Gorges Corporation

Tasks

- (1) HD map collection for Nanning Wuxu International Airport. (2) Beidou development plan editing inside China Three Gorges Corporation.

System Engineer

Space Star Technology Co., Ltd.

09/2020 - 09/2021

Beijing

A part of China Aerospace Science and Technology Corporation

Tasks

- (1) Satellite ground segment design, test and integration. (2) Critical design for satellite control center. (3) Software test report editing. (4) Abroad customer remote technical support. (5) Remote software deployment.

RESEARCH PROJECTS

Master thesis: Temperature Dependency of a low-cost IMU (08/2019 - 02/2020)

- (1) Developed a Python driver for MPU9250 to collect data from FIFO register via I2C protocol. (2) Connect MPU-9250 with Raspberry Pi and control the sensor via Linux command. (3) Collect static data from 3-axis accelerometer and 3-axis gyroscope under different temperature points and also a cooling down process. (4) Generate 2D and 3D Allan Deviation by MATLAB, calculate the Bias Instability and Random Walk. (5) Analyze the effects of temperature on the sensor. (6) Build up polynomial temperature compensation for the data.

Development of a Modular Multi-Sensor System (12/2018 - 02/2019)

- Combine different sensors into a loop by LabView and perform Kalman Filter for sensor fusion. My task was to calibrate gyroscope and design the LabView program to collect gyroscope data.

Integrated Fieldwork 2018 (06/2018 - 08/2018)

- 3D Modelling of the Hülben Aerodrome Hangar and Landing Strip Survey. Plan the route of surveying vans, responsible for GNSS static observation network design, GNSS data collection and post processing, final presentation.

ACHIEVEMENTS

Scholarship of China University of Mining and Technology (Beijing) (2015)