Farizha Aulia Martakusuma

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WORK EXPERIENCE

01/08/2020 – 31/01/2021 – Berlin, Germany
RESEARCH ASSISSTANT – BUNDESANSTALT FÜR MATERIALFORSCHUNG UND -PRÜFUNG (BAM)

Multi-sensor data fusion for corrosion detection in concrete:
- Perform experiments to expand the reference dataset.
- Application of supervised machine learning in practice and study of the information theory background.
- Automation of the extraction of realizable parameters (so-called features) from non-destructive test signals and testing of their contribution to performance improvement.

01/09/2017 – 30/04/2020
UNIVERSITY RESEARCH ASSISTANT – TECHNISCHE UNIVERSITÄT BERLIN

- Working as the TU Berlin representative for the SAFE-10-T Project which was funded by H2020.
- The SAFE-10-T Project aims to develop a Safety Framework to ensure high safety performance while allowing longer life-cycles for critical infrastructure across the road, rail and inland waterway modes.
- Main tasks:
  - Visualizing conflicts caused by insufficient capacity or critical infrastructure failures (map-based)
  - Integration of different data sources through a dashboard
  - Identifying conflicts to develop safety management plans
  - Critical node and interchange as focus to develop emergency management plans for critical events

Berlin, Germany

04/2015 – 03/2016
GIS PROJECT – DEPARTMENT GEODESY AND GEOINFORMATION SCIENCE - TU BERLIN

Main goal: Monitoring the health structure of the bridge by using multiple sensors as well as parsing (streaming) and visualizing the obtained data onto 3D map and combined into one integrated live user interface.
Objective: Upload, streaming, and manage the 3D bridge model and sensors onto Cesium streaming (3D World map platform).

Berlin, Germany

08/2011 – 09/2011
INTERNSHIP – PT. PERTAMINA EP

Database construction and management of geodetic reference points for seismic survey

Jakarta, Indonesia

05/2011 – 06/2011
INTERNSHIP – DEPARTMENT OF GEOMATICS ENGINEEIRNG - SEPULUH NOPEMBER INSTITUTE FOR TECHNOLOGY

Tachymetry, GNSS RTK, und GIS Analyzing

Surabaya, Indonesia

EDUCATION AND TRAINING

11/2014 – 11/2016 – Berlin, Germany
MASTER OF SCIENCE (M.SC) – Geodesy and Geoinformation Science, Technische Universität Berlin

- Geo Information Science (GIS): Web Cartography, GIS Administration
- Space and Geodesy and Navigation: GNSS, Planetary Geodesy
- Engineering Surveying and Estimating Theory: Adjustment Theory, Statistical Test and Analysis of Stochastic Process
- Computer Vision and Remote Sensing: Optical Remote Sensing, Microwave Radar Remote Sensing

Master Thesis: Space Decompositions for Preserving Map Privacy

09/2008 – 03/2013 – Surabaya, Indonesia
BACHELOR OF ENGINEERING (B. ENG) – Geomatics Engineering, Sepuluh Nopember Institut für Technologie

- Surveying: Height determination, network adjustments.
- Engineering surveying: Tachymetry surveying for "Cut Fill" project.
- Hydrography: Bathymetric survey, surface topography.
- GNSS survey: Positioning, network adjustments.
- GIS: Web GIS development, GIS Analyzing.
- Photogrammetry and Remote Sensing with image analysis.

Bachelor Thesis: Application of Geographic Information System for Information System of Health Service in Surabaya City Based on Web

LANGUAGE SKILLS

Mother tongue(s): BAHASA INDONESIA

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	C1
GERMAN	B1	B1	A2	A2	B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Programming Skills

Web Development: HTML 5, CSS, JavaScript | Basic of Python | Programmin language MATLAB | GIT (GitHub)

GIS and 3D Visualization

GIS software: ArcGIS, QGIS | OGC Services (WMS, WFS, WCS) | PostgreSQL incl PostGIS | CesiumJS

Communication

Ms Team/Slack | video conferencing (zoom cisco webex skype)

Basic Skill

Microsoft Office (Microsoft Office Word, Microsoft Office Excel, Microsoft Office PowerPoint)