Olaf Wysocki

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My website
LinkedIn
GitHub

Experience

AUDI AG / SAVe / Master's Thesis Candidate
MARCH 2020 - PRESENT, INGOLSTADT, GERMANY

Title: Semantic-based Geometry Refinement of 3D City Models for Testing Automated Driving

Tools & technologies: 3D GIS, CityGML, FME, Machine Learning, Surface reconstruction, Point cloud processing, Autonomous driving simulations testbeds

AUDI AG / SAVe / Intern
AUGUST 2019 - SEPTEMBER 2019, INGOLSTADT, GERMANY

Sharpened workflow for generation of semantic city and street space virtual models for autonomous driving simulations
Researched automatisation of highly detailed (LoD3) semantic city models

Tools & technologies: 3D GIS, CityGML, FME, SketchUp, QGIS, Digital Twin modelling, Autonomous driving simulations testbeds, Ruby

Technical University of Munich / Student Research Assistant
DECEMBER 2018 - MARCH 2020, MUNICH, GERMANY

Created workflow for generation of semantic landscape models at crosscountry scale
Delivered visualisation of semantic landscape models at crosscountry scale
Researched and implemented modeling of semantic city models in autonomous driving simulations

Tools & technologies: 3D GIS, CityGML, 3DCityDB suite, FME

SHH Sp. z o.o / GIS Specialist
SEPTEMBER 2017 - JULY 2018, WROCLAW, POLAND

Tested 3D web applications
Modeled CityGML and reality mesh objects
Performed spatial analysis based on 3D models and their visualizations as a web application
Advanced 3D city model creation for the city of Poznan, Poland
Created 2D maps at country scale
Conducted workshops, trainings on the topic of 3D modelling, point cloud and imagery processing
Represented the company at conferences and tutorials

Tools & technologies: 3D GIS, CityGML, FME, virtualcitySUITE, QGIS, SketchUp+CityEditor, City modelling, ContextCapture, Point cloud & imagery processing , LumenRT, OGC

SHH Sp. z o.o / Intern
JULY 2017 - AUGUST 2017, WROCLAW, POLAND

Diagnosed vector and raster data errors
Created visibility analysis based on 3D models and their visualization as a web application

Tools & technologies: Utilities, Bentley MicroStation, Visibility analysis, QGIS, ArcGIS, virtualcityMAP

Education

Technical University of Munich / M.Sc
Geodesy & Geoinformation
OCTOBER 2018 - PRESENT, MUNICH, GERMANY

Major: GIS, Cartography, Photogrammetry, Remote Sensing

Wroclaw University of Science and Technology / B.Eng.
Geodesy and Cartography
OCTOBER 2015 - FEBRUARY 2018, WROCLAW, POLAND

Grade 5.0 (very good), distinction for thesis, dean's scholarship first category

Technical University of Crete / B.Eng.
School of Mineral Resources Engineering
OCTOBER 2016 - JANUARY 2017, CHANIA, GREECE

An exchange semester within the "Erasmus+" programme

Awards

Scholarship / Deutscher Akademischer Austauschdienst (DAAD) Study Scholarships for Graduates
AUGUST 2018, DAAD

Distinction / Bachelor's thesis
MARCH 2018, WYDAWNICTWO KARTOGRAFICZNE EKO-GRAF Sp. z.o.o

Winner / the 15th Students' Science Conference
SEPTEMBER 2017, WROCLAW UNIVERSITY OF SCIENCE AND TECHNOLOGY

Winner / the competition "The Lower Silesian Voivodeship on map composition"
JUNE 2017, THE LOWER SILESIAN VOIVODESHIP

Distinction / presentation of paper "Observation towers visibility analysis, located within Polish side of the Sudety mountains using GIS software"
MAY 2017, FACULTY OF ENVIRONMENTAL ENGINEERING AND GEODESY OF HUGO KOŁŁĄTAJ'S AGRICULTURAL UNIVERSITY IN CRACOW

My projects

Save the Cyclists!

Multicriterial analysis of cyclists accidents and development of web map application for results exploration

Echoes of Breslau in Wroclaw

Mobile mapping of historical landmarks, visualisation with crowd-sourcing platform

What can you see from the observation tower in the Sudetes and why can you see more?

Viewshed analysis and the attractiveness of the observation tower assessment and proposal of more appropriate observation tower location together with 3D web map visualisations

Surveying campaigns

Project Nemi
SEPTEMBER 2019 NEMI, ITALY

Performed inventory of archeological sites using UAVs, terrestrial imageries and TLS methods
Created 3D reconstruction of archeological sites based on point clouds and images

Tools & technologies: Photogrammetry, TLS, UAVs, data fusion, Pix4D, MeshLab

Project Christ the King Figure
SEPTEMBER 2016, SWIEBODZIN, POLAND

Deployed establishment and measurements of high precision network for tall objects
Performed inventory of tall objects using laser scanner and high precision network

<u>Tools & technologies</u>: GPS/GNSS high precision measurements (Trimble), total stations (Trimble, Leica), levelling instruments (Topcon, Leica), high precision network establishment, laser scanner (Leica), scanning total station (Leica Nova MS60), exterior and interior scanning of tall objects, Bentley Microstation

Project Marshal's Office of Lower Silesia Voivodeship
SEPTEMBER 2015, WROCLAW, POLAND

Created DEM of land plots using tachymeter
Deployed establishment and measurements of measurement network

<u>Tools & technologies:</u> tachymeter (Topcon), levelling instruments (Topcon, Leica), C-Geo, MS Office

Organizations

TUM Hyperloop e.V. / Geographic Information Specialist
NOVEMBER 2019 - PRESENT, MUNICH, GERMANY

Runder Tisch GIS e.V. / Member
OCTOBER 2019 - PRESENT, MUNICH, GERMANY

Scientific Research Circle GIS/ Vice-President
JANUARY 2017 - FEBRUARY 2018, WROCLAW, POLAND

Movie Discussion Club University of Technology/ Secretary, member of the board
MAY 2015 - DECEMBER 2016, WROCLAW, POLAND

Publications

Hands-on article "Helping Cyclists Stay Safe Using HERE Studio"
FEBRUARY 2020, HERE

Trend analysis INTERGEO 2019
DECEMBER 2019, RUNDER TISCH GIS E.V.

Trend analysis INTERGEO 2019 (Post-Show Report)
NOVEMBER 2019, HINTE MESSE-UND AUSSTELLUNGS-GMBH

ESRI Living Atlas Web Application
NOVEMBER 2018, ESRI

Article "Echa Breslau we Wrocławiu"
OCTOBER 2018, ARCANAGIS

Article "Co widać z wieży widokowej w Sudetach i dlaczego można zobaczyć więcej?"
JUNE 2018, ARCANAGIS

Skills

Working proficiency: FME, QGIS, ArcGIS, ContextCapture, MicroStation, SketchUp+CityEditor

Familiar: Pix4D, Python, JavaScript, Ruby, AutoCAD, Revit

Technologies: 3D GIS, Photogrammetry, Laser scanning, Web applications

Languages: Polish (C2), English (C1), German (B1)