## WILMAR P. ALFECHE

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### **CAREER PROFILE**



Geodetic Engineer with 3 years of experience in using Geographic Information Systems for Disaster Risk Mitigation Research particularly in Flood Hazard Mapping. Currently studying Master of Science in Computer Science at Cebu Institute of Technology during weekends with the goal of incorporating recent advancements in Artificial Intelligence and Big Data Mining to GIS and other Spatial Data Analysis fields.

### **SKILLS**

Geodetic Engineering	Programming
Geographic Information Systems (ArcGIS and QGIS)	Java
Remote Sensing Image Analysis	C#
Land Surveying using GNSS Receivers and Total Station	Python
Handheld GPS Receivers	

### **EDUCATION & CREDENTIALS**

Master of Science in Computer Science Cebu Institute of Technology – University Natalio B. Bacalso Ave, Cebu City, 6000 Cebu	June 2017 – present
Bachelor of Science in Geodetic Engineering Visayas State University Visca, Baybay City, Leyte	June 2009 – May 2013
University of the Philippines - Diliman Diliman, Quezon City	June 2007 – May 2009

#### **EXPERIENCE**

### Technical Specialist 1 (Java Developer)

October 2018 – March 2019

Alliance Software Inc.

BuildComm Center, 14th Floor,, Sumilon Road, Cebu City, 6000 Cebu

#### Tasks:

- Implemented Java source code based on client specifications and quality standards
- Reviewed and optimized source code
- Tested implemented source code to check for errors and possible bugs
- Collaborated with other developers to solve errors and improve the project workflow

## Accomplishments:

Accurately implemented Java source code adhering to quality standards and specifications

## Senior Science Research Specialist

July 2014 – May 2017

PHIL-LIDAR 1 Program - Flood Hazard Mapping of the Major Rivers Basins in Region 8 Visayas State University, Visca, Baybay City, Leyte

### Software Used:

ArcGIS, QGIS, HEC-HMS, HEC-RAS

#### Tasks:

- Integrated processed LIDAR Digital Elevation Models and Flood Models to create high resolution flood hazard maps
- Conducted bathymetric surveys in the river basins to integrate the actual topography of the river beds in the LIDAR data
- Conducted validation surveys to calibrate the elevation of the LIDAR dataset
- Extracted features from the LIDAR data for GIS Analysis
- Conducted field attribution for the extracted features
- Gathered Hydrologic data such as rainfall and stream discharge during base flow and typhoon events to get inputs for flood model calibration
- Applied hydrologic correction to the LIDAR Dataset
- Calibrated flood models using hydrologic data from different rain events

#### Accomplishments:

 Successfully completed this 3-year project which created and distributed flood hazard maps to the floodprone Municipalities in Region 8. The maps were essential inputs for Land Use Planning for the Local Government Units

## Geodetic Engineer

November 2013 – June 2014

Department of Public Works and Highways, Cagayan de Oro, 1<sup>st</sup> DEO Bulua Street, Cagayan de Oro City

### Tasks:

- Conducted route and topographic surveys of proposed road and flood control projects
- Plotted field data in AutoCAD Civil 3D in preparation for design implementation

### Accomplishments:

Successfully conducted route and topographic surveys for Farm to Market roads in Cagayan de Oro

### **ACHIEVEMENTS**

- Top 5 in the Geodetic Engineering Licensure Examinations (September 2013)
- Athlete of the Year in High School (Badminton Varsity Player)
- Class Salutatorian in Elementary School

### **CONFERENCES ATTENDED**

Royal Mandaya Hotel, Davao City

Google I/O July 1, 2017

J Centre Mall, Albano, Mandaue City, Cebu

Phil-LIDAR 1 Visayas Cluster Conference
Visayas State University, Visca, Baybay City, Leyte

November 10-11, 2016

National Conference for Phil-LIDAR 1 and 2

November 17-18, 2014

## PERSONAL INFORMATION

Age: 27

Height: Weight: Nationality: Religion: 175 cm 75 kg Filipino Roman Catholic Date of Birth: November 13, 1991 Gender: Male

Civil Status: Single

# **HOBBIES**

Badminton

Playing Musical Instruments (Guitar and Violin)