

Position:	GIS Project Manager
Name of Firm:	Orbital Africa Ltd.
Name of Staff:	Mr. Felix Orina
Profession:	Geospatial Engineering
Date of Birth:	26 th December 1984
Years with Firm/Entity:	10 Years
Nationality:	Kenyan
Membership in Professional Societies:	Full Member, The Institution of Surveyors of Kenya (GIS Chapter)

Tasks Assigned

To oversee fully implementation of the project; carry out quality control and quality assurance; ensures that all resources (human, financial and time) are well utilized for optimal delivery on projects outputs. He shall also ensure that the change within the project is well managed.

Key Qualifications

Felix Orina is an innovative, assertive, skilled team player and a Geospatial enthusiast having hands-on experience spanning ten (10) years in Geoinformation Science (GIS), Surveying, drone mapping, Geo-IT solutions, GIS mobile and web mapping applications development; remote sensing, design and development of enterprise GIS databases, digital photogrammetry and online mapping, 3D Geo-modeling among other Geospatial solutions. Mr. Orina has actively been involved in execution of several projects in Kenya and Eastern Africa region at large. He has worked at National and county governments; NGOs; humanitarian sector; water and energy utility industries; surveying and construction industries amongst others. Mr. Orina has also been involved in various surveying, GIS, Mapping and Geoinformation training projects in Kenya. He has strong ICT skills in GIS applications development and cloud computing. Mr. Orina has executed survey and GIS training assignments in Rwanda, Madagascar, Somalia and South Sudan. Recently, he conducted training on Application of GIS on Health Information System for 10 participants from Gambia. Additionally, in conjunction with Voltalia Co., a French based company, he supervised a 4-month mega Hydro power project in Meru which entailed topographical and land survey. Academically, whilst studying in the Netherlands for Msc. GIS degree, he worked as a part-time GIS Analyst at the Dutch Kadaster for a period of Six (6) Months. Locally, Mr. Orina has also been actively participating in development of smart GIS mobile and web mapping applications using latest geo-technologies such as GIS Cloud, EpiCollect5, Survey123, ArcGIS online, GeoServer, PostGIS and leaflets. Notably, one of his major accomplishments at Orbital Africa is overseeing the mapping and analysis of 9,000 PEPFAR sites in Kenya (www.orbital.co.ke:82). To augment the provision of Geospatial solutions, Mr. Orina has also participated in offering GIS training and capacity development to various organization within and outside Kenya. The training leverages on proprietary and Open Source Geospatial Software. Presently, Mr. Orina is a part-time GIS consultant at Kenya National Highways Authority (KeNHA). He champions the fully implementation of GIS within the organization. His work entails advising the Authority on the best practices of developing and maintaining the geoportal and other GIS infrastructure. Felix is proficient with front end design languages such as HTML, CSS, JavaScript, Leaflets and various mapping languages. To sum it up, Felix is good project manager, an astute Geospatial Engineer, very focused, organized and always capable of achieving whatever he set out to do!

Education Background

University of Nairobi, Kenya <i>PhD. in Geographical Information Systems (GIS)</i>	Sep 2019 – Dec 2023
University of Twente, Enschede, The Netherlands <i>MSc. in Geoinformation Science & Earth Observation</i>	Sep 2013 – Mar 2015
University of Nairobi, Kenya <i>BSc. Geospatial Engineering</i>	Nov 2004 – Jun 2009

Professional Training

Regional Centre for Mapping of Resources (RCMRD) <i>Certificate in AutoCAD Civil 3D</i>	May 2018 – June 2018
Kenya School of Government (KSG), Nairobi <i>Senior Management Course</i>	Mar 2018 – Apr 2018
Kenya School of Government (KSG), Nairobi <i>Project Planning and Management Course</i>	May 2017 – Jun 2017
World Bank E-Institute, Online Course <i>Integrated Urban Transport Planning Course</i>	Apr 2014 – Jun 2014
World Bank E-Institute, Online Course <i>Course in Street Addressing & Management of Cities</i>	Oct 2013 – Dec 2013

Employment Record

Orbital Africa Nairobi, Kenya <i>Position: GIS Projects Manager</i>	Apr 2016 – To Date
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Oversee the day-to-day operations and management of the company; development of company rules and regulations; ensures that the company meets its projects and financial goals; negotiates for Geo projects and contract signing; acts as a signatory to the company; participates in Geospatial projects acquisition, management, implementation and maintenance; participates in mapping of resources and creation of GIS databases to various clients such as Kiambu and Kajiado County governments; actively involved in offering geoinformation training and capacity development to various clients in Kenya and Africa region at large; actively involved in creation of mobile and web applications to various clients using 4D's approach i.e. Design, Develop, Demonstrate and Deploy; participated in the development of an interactive Land Information Systems (LIS) and spatial plan for the city of Nairobi; involved in the street addressing project that sought to label buildings and code streets in Nairobi and Kisumu cities; involved in the management of execution of survey project works e.g. topographical and land survey, data processing and map production. Ensures that quality control and quality assurance is achieved during execution of all projects undertaken by Orbital.

Kenya National Highways Authority Nairobi, Kenya <i>Position: GIS/Surveyor Consultant</i>	Jun 2016 – Dec 2018
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As a GIS Portal consultant, I spearheaded and oversaw fully implementation of Geographical Information System (GIS) within the Authority; supervised and coordinated all the GIS field mapping and data collection activities including reporting. Oversaw the development of

Authority's GIS Implementation Framework spanning 3 years; championed the development of GIS data sharing protocols in different directorates; updated of Authority's GIS manual; liaised with other directorates such: [1] Road Asset and Corridor Management – to adopt and integrate GIS with Annual Road Inventory and Condition Survey; [2] Directorate of Highway Planning and Design – to develop and deploy GIS operation dashboard for reporting the progress of road projects. Fully participated in the development of GIS mobile and web applications for the Authority e.g. land acquisition and land asset database, road corridor mapping, road structures and furniture mapping, developed a prototype road incident reporting platform; prepared annual survey work plans; carried out evaluation and certified works submitted by survey and mapping consultants; Prepared periodic reports for the survey department; prepared the GIS training workplan for the Authority; supervised the work of survey consultants engaged by the Authority; Participated in the preparation of GIS and survey data archiving and cataloguing workflows as well as protocols within the Authority. Liaised with ICT department on matters related to GIS software installation, licensing, fine-tuning, and upgrading; troubleshooting and overall technical support.

Dutch Kadaster | Apeldoorn Municipality, The Netherlands

Jun 2014 – Nov 2014

Position: Spatial Analyst Intern

Actively participated in the collection and registration of administrative and spatial data on land property and the ownership rights involved. Performed checks on data integrity and did corrections using topological rules such as overlaps, gaps, intersection of parcel polygons. Did GIS analysis and creation of Netherlands Property database for Apeldoorn municipality. Corrected the topological errors inherent in the GIS data such as population, provincial and town datasets; participated in field studies on resilient cities in The Hague, Rotterdam and Amsterdam cities. Also learnt how different cities such as Amsterdam and Rotterdam were reclaimed from the sea and the process of construction of dykes in Dutch cities. Performed a number of advanced GIS data analysis and processing using Python.

Oakar Services Ltd. | Nairobi, Kenya

Sep 2009 – Jul 2012

Position: Head GIS & Mapping Department

Supervised GIS assistants; coordinated various company projects and did report writing; prepared and delivered customized training courses on GIS, GPS and remote sensing; Participated in GIS web application development, data acquisition and documentation; organized and maintained the geospatial datasets, metadata and its documentation; Prepared the technical proposals documents, project acquisition as well as management; Did satellite imagery analysis (Landsat, GeoEye, RapidEye, IKONOS, KOMPSAT and QuickBird); Performed change detection analysis tasks for various projects that he undertook; Did field data collection using handheld and geodetic GPS, levels and total stations; advanced GIS analysis and creation of cartographic maps for various projects undertaken; Developed the geospatial enterprise solutions using ArcGIS server and ERDAS Apollo; Actively participated in professional seminars, exhibitions, conferences as well as workshops; Produced digital web maps; Developed the multiuser geodatabases and web-based applications using ArcGIS server, ArcObjects and ArcGIS APIs, .KML; geoprocessing using python; Installed the enterprise databases i.e. SQL server and PostgreSQL for clients. Conducted Geoinformation training to various clients from national government, water and power utility industries, agriculture sector among others.

Ministry of Lands, Survey of Kenya | Nairobi, Kenya
Position: Surveyor Intern

Jul 2008 – Nov 2008

Overseeing, maintaining, and providing the management of geospatial data and products. Scanned and did on-screen digitization of survey plans and registry index maps; Created and maintained the geodatabases and validation thereof; Developed the digital topographical maps using Esri ArcGIS 9.3 software and R2V; Did adjudication and general boundary surveys; Authenticated the survey plans and deed plans prior to issuance of land titles; Scanned and digitized features from topographical maps (scale 1:50,000) such as rivers, contours, roads and forests; cadastral work, deed plans verification and authentication, field work data collection using Garmin GPS; Cartographic map creation and compilation; Determined boundary lines, tracing of government survey lines, re-established and marked survey lines; Established and maintained an automated land information system (LIS) for mapping data and digital land boundary records; Carried out quality control survey; topographical, engineering and cadastral surveys; Created land survey technical reports for various projects. Coordinated and briefed geospatial stakeholders on geospatial capabilities and activities such as preventing duplication of efforts, promoting information sharing, and setting geospatial priorities based on incident requirements. Supervising, monitoring, and reporting on geospatial requests and production as well as adhering to copyright, disclaimers, licensing, and other sensitive products and data distribution protocols.

Technical Skills

1. *Geospatial/Survey*: - AutoCAD Civil 3D, Total Station, Drone/UAV, Auto Level, GNSS.
2. *GIS & Remote Sensing*: - ArcGIS, QGIS, ENVI, ERDAS Imagine, LPS, Pix4D and Agisoft.
3. *Computer and ICT*: - Cloud Computing, Python, HTML, Javascript, Geoserver, PostgreSQL and PostGIS.

Languages

<i>Language</i>	<i>Speaking</i>	<i>Reading</i>	<i>Writing</i>
1. English	Excellent	Excellent	Excellent
2. Swahili	Excellent	Excellent	Excellent
3. French	Fair	Fair	Fair

Certification

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and my experience, and that I will be available to work on the assignment as indicated in the Proposal if it will be successful.

Date: 3rd December 2019



Signature of Staff Member