

## POSITION DESCRIPTION

<b>TITLE:</b>	<b>Full Stack Software Engineer</b>
<b>DEPARTMENT:</b>	<b>ENGIE PowerCorner Tanzania</b>
<b>MANAGERS:N+1</b>	<b>Head of Digital</b>
<b>LOCATION</b>	<b>Dar es Salaam, Tanzania</b>

### Background

---

ENGIE's Africa Business Unit manages the development and operation of thermal power and renewable energy assets in several countries, as well as energy installation and maintenance services activities. It is a first-mover in independent power generation in South Africa and built one of Africa's largest wind farms in Morocco. Whether in engineering consulting, facility management or energy efficiency services, ENGIE has built a solid reputation in Africa over the last 50 years.

ENGIE BU Africa is a pioneer in "Access to Energy" through its mini-grids and Solar-Home-Systems activities. It aims to become a leading off-grid energy services company on the continent, making universal access to modern energy a reality. ENGIE is already providing clean decentralized electricity with these solutions to more than 1 million people in 4 African countries.

PowerCorner is ENGIE internally incubated initiative to develop sustainable mini-grids to provide electricity in rural communities of Africa using a combination of key innovations: standardized low-cost decentralized production units, a local distribution grid combined with smart prepaid meters and mobile money (<http://powercorner.com/?video=1>). The market potential for mini-grids is significant with 600 million people without access to electricity in sub-Saharan Africa.

### Job Purpose

---

The candidate will be integrating, maintaining, developing and expanding PowerCorner's software applications to provide an ecosystem of services that contributes to a positive, visible difference on the field for our customers and stakeholders. This will include the full stack development of our web and mobile applications, and the integration of data streams from and to other systems such as our Salesforce CRM and the mobile money operators. The role offers the opportunity to accompany the project along its growth, combining the agility of a small innovative team and the impact a large company can offer.

### Relationships

---

The software engineer will interact and develop working relationships with:

#### Internal Interfaces

- A team dedicated to the digitization of PowerCorner (based between Paris, Dar and Brussels)
- Mini-Grids teams based in Paris/Brussels and on the continent for the subsidiaries (current total staff of ~45 FTE, and growing steadily)
- Engie IT consultants
- End users, mainly sales agents in the different subsidiaries

#### External Interfaces

- Suppliers and partners, including African mobile money and telecom operators

## Principal Functions and responsibilities

---

### Software development

- Develop web and mobile applications, and their associated digital services
- Integrate service providers (mobile money, SMS notifications) through API for each new target country
- Identify strategies to meet reliability requirements and support the creation of new services
- Maintain, implement bug fixes, and refactor the existing software to support efficient services at scale
- Work in an agile environment

### Innovation [ mid and long term ]

- Be a creative force, generating ideas and testing disruptive technologies and methods through proofs of concept, especially the developments likely to impact mini-grids markets

### Support [ short term ]

- Support to the teams in Paris, Brussels and Africa :
  - Support to data analysts
  - Software support to end users
  - Bug fixes
- Various IT support for the team members in Dar

## Required Experience & Qualifications

---

- 4+ years of experience in software development
- The position requires a knowledge of:
  - JavaScript ES6
  - Node.js
  - React, Redux
  - Python
  - RESTful APIs
  - Relational (SQL) and non-relational (NoSQL) databases
  - Agile product management with tools such as Jira Software
  - Experience with Git-based source code management
  - Test-driven development and continuous integration
- Data modelling and database administration skills
- Working knowledge of both front end and back end programming concepts
- Working knowledge of good practices for authentication and data security
- Outstanding written and verbal communications skills in English – French/Swahili is a plus
- Entrepreneurial spirit and collaborative nature
- Self-organized and pro-active, with an ability to learn quickly and to demonstrate technical recommendations through a rational, data-driven approach
- A passion for energy access and a willingness to pursue state-of-the-art technologies
- Bachelor's degree in a relevant engineering discipline (computer sciences preferred)

## Desired Experience & Qualifications

- The position would benefit from a further knowledge or a willingness to learn technologies such as:
  - AWS Lambda and serverless architectures
  - Salesforce integrations
  - Flutter, Dart, and the development of mobile applications
  - TypeScript
  - GraphQL
  - Elasticsearch
  - Redis
  - Jenkins
  - Bitbucket

- Confluence
- IoT devices integrations
- Solidity, and blockchain applications
- Tableau, and business intelligence tools
- TensorFlow, and machine learning libraries
- Prior experience with software design for testability
- Notions of UI and UX design
- Interest for new and potentially disruptive technologies (decentralised energy, blockchain, ...)
- Interest in emerging markets and multicultural environments

### **Language(s)**

---

Fluent in English. French or Swahili are a plus.

### **What we offer**

---

- Actively participate in defining tomorrow's business models for energy access
- A secure position in a company combining the strengths of a start-up in terms of agility and those of a multinational in terms of financial and business support.
- Being part of a passionate and professional team based in Dar es Salaam, Tanzania
- Competitive pay

### **Contact**

---

If you think your profile fits with the description of a Full Stack Software Engineer and your personal ambition matches with the challenges outlined, we strongly invite you to submit your application by **25th Oct 2019**. Please send your application by email to [guillaume.rotsart@engie.com](mailto:guillaume.rotsart@engie.com) AND [gonzague.leruth@engie.com](mailto:gonzague.leruth@engie.com) .