Junior Software Engineer

Introduction to SOLA

SOLA is a 100% South African, vertically integrated renewable energy solutions provider, specialising in the development, construction and operation of solar PV and battery energy storage projects. We focus on partnering with the private sector to deliver clean energy to businesses across South Africa using cutting edge clean energy generation and storage technologies. We help our clients to grow and prosper through the adoption of low cost and reliable renewable energy, enabling them to meet their carbon reduction and sustainability targets. For more information, visit www.solagroup.co.za.

The overall purpose of the position:

The Junior Software Engineer supports the delivery of internal software projects at SOLA. The role is for an early-career developer with solid fundamentals who wants to build production-grade software (computational models, optimisation engines, data pipelines and supporting interfaces) under the guidance of the Senior Software Engineers. The successful incumbent will take ownership of well-defined components and features within one or more SOLA software products, working closely with the other employees in the software development and data science division, under the group engineering function. The role involves cooperation with departments across SOLA to improve operational efficiency and to build tools and systems that reduce manual work.

The incumbent works alongside the Senior Software Engineers (including the engineer responsible for BESS model automation and optimisation), the Data Scientist and the Engineering team on Project Compass and the broader effort to streamline and automate the company's operational and decision-making processes. The initial focus is supporting SOLA's generation-forecasting and balance-responsible-party (BRP) optimisation workstream, but the role is expected to broaden over time as the incumbent's skills and experience grow.

Reports to: Senior Software Engineer
Location: Cape Town office

Summary of Responsibilities:

Software Development

- Build and maintain features and components of SOLA's software products, including data pipelines, model code and supporting web interfaces, to specifications agreed with the Senior Software Engineer.
- Write clean, well-tested, well-documented code and submit it for peer review. Act on review feedback promptly and apply it to future work.
- Use, and help maintain, the team's version control, CI/CD pipelines, deployment infrastructure, scheduling and monitoring.
- Assist with integrating SOLA's software with external systems (weather and market data, SCADA, financial systems, simulation tools, third-party APIs) under guidance.
- Contribute to technical documentation: module specifications, data dictionaries, how-to guides and decision logs.
- Investigate and fix bugs and help triage issues raised by users of the software.

Delivery and Working Structure

- Work within the team's delivery cycle by taking part in sprint planning, stand-ups, reviews and retrospectives.
- Break assigned work into clear tasks, estimate them realistically, and report progress and blockers early.

- Follow the division's development processes and policies, including those on the use of Artificial Intelligence tools and cyber security, and suggest improvements where you see them.
- Keep tickets, documentation and status up to date so that others can pick up your work.
- Learn continuously. Agree development goals with your manager, seek feedback and build depth in the technologies and the energy domain SOLA works in.

Cross-functional Work

- Work with the Data Scientist, the Engineers and subject-matter experts across BD, Finance, Engineering and Operations to understand the commercial, technical and regulatory context behind the software.
- Help turn the Data Scientist's statistical methods and the Engineers' domain models into robust, maintainable, operational software.
- Explain your work clearly to both technical and non-technical colleagues.
- Contribute ideas to technology choices and the automation roadmap, taking on a greater say as experience builds.

Minimum Requirements:

- BEng in Electrical and Electronic Engineering or a Bachelor of Science (BSc) in Computer Science.
- Experience in Go, Linux, HTMX and Templ would be advantageous
- Must be fully proficient in English (verbal and written communication)
- Must be fully computer literate (MS Office Suite and Google App Suite)
- The ideal candidate will be passionate about the renewable energy industry and will embody respect and responsibility in the full sense of the word, while enjoying contributing to a team of highly knowledgeable professionals.

At SOLA one of our core values is *Dig Diversity* and we are committed to transformation and embracing diversity. This commitment is what drives us to achieve a diverse and inclusive workplace, representative of the demographics of our society. We therefore give preference to applicants from the designated groups in alignment with our Employment Equity plan.

To apply for this vacancy, please send a copy of your CV to hireme@solagroup.co.za.