

# OKOLAI OTONBARA ALFRED

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## SKILLS

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**CAD:** AutoCAD, SketchUp, Tekla TEDS

**GIS:** QGIS

**Hydraulic Software:** EPA SWMM

## EDUCATION

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**Bells University of Technology** – BEng in Civil and Environmental Engineering      **Feb 2021 – Feb 2025**

## EXPERIENCE

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**Civil Engineering Intern**, Erete Engineering Nigeria Ltd. – Yenagoa, Nigeria      **July 2023 – Dec 2023**

- Supported the supervision of a 4km stormwater drainage and 2km road network for NDPHC
- Reviewed construction drawings, monitored progress, and performed quality and safety checks.
- Collaborated with engineers and foremen on planning, materials, and contractor performance.

**Civil Engineering Intern**, Koe Procurement and Services Ltd. – Yenagoa, Nigeria      **Aug-2022 – Jun 2023**

- Contributed to the successful delivery of an estate development project comprising 40 units of 5-bedroom, one-storey duplexes.
- Assisted with site layout, reinforcement placement, and structural work, gaining hands-on construction supervision experience.
- Collaborated with contractors, site engineers, and labor teams to maintain project timelines and meet quality benchmarks, supporting efficient project progress.

## PROJECTS

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**Leveraging GIS and SWMM With Low Impact Development Techniques To Improve Urban Drainage and Flood Mitigation: A Case Study of Opolo Housing Estate, Bayelsa State** – otonbara-eng.vercel.app

- Developed a sustainable drainage retrofit strategy using QGIS and EPA SWMM to model stormwater behaviour and evaluate Low Impact Development (LID) solutions.
- Simulated baseline and LID scenarios (permeable pavements and rain barrels), achieving an 85-87% reduction in peak runoff and flow volumes.
- Integrated geospatial and hydrologic-hydraulic modelling to assess drainage efficiency and flood resilience.
- Proposed practical LID-based design recommendations for urban flood mitigation in tropical regions.