SOLOMON TESFAYE

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SUMMARY

Aspiring BIM professional with a distinction-grade MSc and a background in architecture and building engineering. Experienced in team-based environments and committed to continuous learning. Focused on digital project coordination, effective communication, and contributing to high-performing, cross-functional teams.

SKILLS

- ISO 19650 Series
- COBie and IFC Data Management
- BIM Execution Plans (BEP)
- Lean Construction Principles
- BIM Work-flows and Concepts

- Revit (Architecture,MEP,Structure)
- Rhino
- BlenderBIM / Bonsai
- Dynamo for Revit
- BIM 360

- Solibri
- Navisworks Manage
- Synchro 4D
- IES-VE (Sustainability)
- Microsoft Office Suite & Adobe PS/AI/ID

EDUCATION

MSc in BIM and Digital Built Environment (Distinction) (Sep 2024 – Sep 2025, Expected)
University of Salford, Manchester, UK
Developed practical expertise in BIM, industry standards, information management, sustainability, and Lean principles through hands-on projects and research.

Key Projects
- Resolved 500+ clashes and COBie data gaps in IFC models for the Surf Central HQ using Revit, Solibri, and Navisworks, ensuring ISO 19650 compliance. Automated validation process with Dynamo and visualised data quality metrics in Power BI.
- Prepared ISO 19650 Part 2-compliant information management plans (AIR, EIR, PIR, BEP) for a health facility project, streamlining data exchange and reducing coordination delays.
- Streamlined design process map in a traditional firm by applying 5 Whys, Fishbone analysis, and value stream mapping, resulting in a 31% reduction in time waste.
- Performed IES-VE simulations for a fabric-first retrofit of a Victorian end-terrace house, achieving a 60% reduction in heating load in alignment with UK Part L decarbonization standards.
- Built a rule-based BIM compliance frame-work during MSc dissertation to automate UK Building Regulation checks (e.g., fire safety, accessibility), expediting design approvals.

MSc Building and Architectural Engineering (Cum Laude) (Sep 2017 – Jul 2020)
Politecnico di Milano, Milan, Italy
Studied construction technologies, integrated design, building systems, building physics, structural design, and project management. Built an integrated understanding of digital design procedures and technical knowledge backing BIM-based project delivery.

Key Projects
- Led a multidisciplinary student team in the C40 Reinventing Cities competition, applying BIM methods for collaborative design and project coordination.
- Completed an integrated design thesis titled Smart Without Slum, later published as part of a research initiative.
- Directed a design team in international design competitions organised by Archsharing and Kaira Looro.

Bachelor of Architecture (Great Distinction) (Sep 2010 – Mar 2016)
Arba Minch University, Ethiopia
Gained a solid foundation in architectural design, construction methods, and project development processes across residential, commercial, and public buildings.

WORK EXPERIENCE

Digital Built Environment Researcher (Jul 2021 – Present)
IMM Design Lab, Politecnico di Milano, Milan, Italy (remote)
Focused on data and information management for digital urban modelling and smart city planning as part of the Ecosystem for Sustainable Transition in Emilia-Romagna project, funded by the EU and Italian government, contributing to data-sets covering 7+ urban districts.

Key achievements
- Managed spatial and attribute data for road networks, buildings, amenities, and green spaces using QGIS, delivering accurate and structured data-sets for urban analysis across 7+ cities around the world.
- Engineered digital system for data analysis, supporting the creation of City Information Models (CIM) and improving decision-making speed for designers and planners by up to 40%.
- Drafted a technical user manual for creating data-rich urban diagnostic maps in QGIS, which has been adopted by 10+ student teams and six researchers in the lab.
- Authored a Python tool that automates the ranking of complex design options, optimising solution analysis time from 2 – 3 days manual job to under 10 minutes automated task.

Architectural designer (Sep 2020 – May 2021)
Gogo Studio, London, UK
Coordinated BIM implementation for residential projects, focusing on planning applications, building regulation compliance, and digital work-flows. Implemented integrating BIM methodologies to improve design accuracy and project coordination.

Key achievements
- Generated planning applications and building regulation drawings for residential developments, guaranteeing 100% compliance with UK Building Regulations across 10+ projects.
- Created data-rich BIM models for cost estimation, compliance, and documentation, enabling architects and engineers in delivering 10+ housing projects on schedule.
- Conducted site surveys and translated field data into accurate digital models, refining project accuracy and feasibility analysis by minimising design revisions during early stages.
- Improved drawing production and documentation standards, maintaining consistently structured files and enhancing information retrieval across project phases, reducing team coordination delays by 30%.

CERTIFICATIONS

- Solibri: LinkedIn (Mar 2025)
- Dynamo for Revit Masterclass: Udemy (Jan 2025)
- Navisworks Manage: Udemy (Jul 2024)
- Rhino 3D: Udemy (Jun 2024)
- Revit Structure: LinkedIn Learning (Apr 2022)
- Revit MEP: LinkedIn Learning (Mar 2022)
- BIM Execution Plan for Architects: LinkedIn Learning (Mar 2022)
- ISO Global BIM Standards: LinkedIn Learning (Feb 2022)
- Become a BIM Coordinator: LinkedIn Learning (Feb 2022)
- Creating a BIM Execution Plan: LinkedIn Learning (Feb 2022)
- BIM Application for Engineers: Coursera (Nov 2020)
- Leadership Certificate (Jul 2020)

MEMBERSHIPS & AWARDS

- Student Member: Chartered Institute of Building (CIOB).
- Gold Scholarship: Politecnico di Milano (Awarded for academic excellence and merit).
- Erasmus Mobility Scholarship: Studied Architectural Technology at Robert Gorden University (Aberdeen) for half a year.
- Polisocial Award 2020: Part of a funded research initiative at Politecnico di Milano focusing on social impact projects in the built environment.

PUBLICATIONS

- The Application of IMM Methodology and SMART Model to Climate Vulnerable Secondary Cities in Sub-Saharan Africa: The Case of Quelimane, Mozambique – Springer, 2024 (pp. 577–587).
- IMM Urban Diagnostic: A Decision Support Tool for the Sustainable Urban Development of Dakar Region – Springer, 2024 (pp. 495–507).
- SMART Without Slum: Featured in African Cities Magazine, 2nd Edition (Research on sustainable urban development in Africa).

Portfolio: https://solotecture.github.io/solomon_tesfaye/