

Usama Ali Sher

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EDUCATION

Sapienza Università di Roma

Rome, Italy

Bachelor's Degree in Sustainable Building Engineering

Sep. 2021 – Oct. 2025

- Key coursework: Construction Site Management, Structural Design, Geological Risks, Technical Architecture Design

Arkansas State University

Jonesboro, AR, USA

International Mobility Program – Civil Engineering

Aug. 2024 – Jan. 2025

EXPERIENCE

Hydraulic Modelling Engineer

2026 – Present

Progeo Engineering

Arezzo, Italy

- Perform hydraulic and river modeling using HEC-HMS, HEC-RAS, and GIS tools
- Analyze the hydrological behavior of basins and simulate flood events
- Develop and manage digital terrain models and hydraulic networks in Civil 3D and QGIS
- Simulate river runoff and verify hydraulic cross-sections
- Support the design of hydraulic structures and hydraulic risk studies

Junior Civil Design Engineer (Progettista)

Sep. 2025 – Feb. 2026

Studio di Ingegneria

Arezzo, Italy

- Conducted site surveys with the Trimble TX8 laser scanner for accurate measurements and documentation
- Processed point cloud data to support architectural and civil engineering design
- Prepared technical drawings in AutoCAD, including floor plans, comparative drawings, sections, and elevations
- Developed 3D models from survey data and prepared bills of quantities in Primus for cost estimation

DESIGN PROJECTS

Survey and Documentation of an Urban Residential Complex | Trimble TX8, Recap Pro, AutoCAD

Arezzo, Italy

- Executed a laser scanner survey of an urban residential complex comprising 58 elevations
- Produced elevations, site plan, and floor plans in AutoCAD, plus documentation supporting the bill of quantities

ACADEMIC PROJECTS

Bachelor Thesis: LID Techniques and Green Infrastructure | HEC-HMS, QGIS

2025

- Modeled the hydrological response of an urban catchment to evaluate how Low Impact Development (LID) and Green Infrastructure (GI) measures attenuate flood peaks and improve runoff water quality
- Built and calibrated a rainfall-runoff model in HEC-HMS for a [X] km² catchment, simulating design storms across multiple return periods
- Compared [N] LID scenarios (e.g. permeable pavement, bioretention, green roofs), quantifying a [X]% reduction in peak discharge relative to the baseline

Redevelopment of the Marea Residential Complex | Revit, AutoCAD, SAP 2000

- Integrated architectural and structural design to align construction solutions with sustainability requirements

Inclusive School Project, Lucca | BIM, Revit, AutoCAD

- Designed educational spaces for resource-constrained settings with a focus on environmental sustainability and inclusiveness
- Modeled the entire project in BIM, applying advanced Revit and AutoCAD technical detailing

TECHNICAL SKILLS

Hydraulic & GIS: HEC-HMS, HEC-RAS, QGIS, AutoCAD MAP, Civil 3D

Design & BIM: AutoCAD, Revit, Tekla, SAP 2000, SketchUp

Survey & Point Cloud: Trimble TX8 Laser Scanner, Trimble RealWorks, Recap Pro

Cost Estimation: Primus (Bill of Quantities)

Languages: English (fluent), Italian (fluent), Urdu (native)