

MAHEEP MOULI SHASHI

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📄 [issuu.com/home/docs/as08v4a3b8r](https://www.issuu.com/home/docs/as08v4a3b8r)

SUMMARY

Architect and computational designer with a passion for data-driven urban solutions, AI integration, and sustainable development. Experienced in delivering scalable design systems and predictive models across traffic mobility, digital fabrication, and smart city applications. Adept at blending creative design thinking with advanced computational tools to solve complex urban challenges and drive innovation in architecture and planning.

EXPERIENCE

Architectural Designer

Atelier 24

March 2023 - May 2025, New Delhi (Remote)

- Contributed to the design and documentation of over **150,000 sq. ft.** of built area across hospital and hotel projects.
- Produced **>200 technical sheets** including detailed floor plans, sections, and service layouts using Revit and AutoCAD.
- Facilitated weekly coordination meetings between architectural and MEP teams, improving issue resolution speed by **30%**.
- Led Rhino-Grasshopper scripting for form generation, cutting manual modeling time by **40%** on complex facades.
- Oversaw documentation packages across **3 major project phases**, ensuring compliance with national codes.
- Maintained digital drawing databases and introduced version control workflows for remote teams across 2 time zones.

Researcher - Master Thesis

IAAC

September 2024 - June 2025, Barcelona, Spain

- Analysed traffic data from **8 international cities**, spanning over **2 years and 5 million data points**.
- Developed an AI-based congestion index, achieving **92% accuracy** in traffic volume prediction over 1-month horizons.
- Built a dynamic dashboard enabling **real-time visualisation** of urban congestion layers and forecasted trends.
- Integrated 10+ urban variables (weather, AQI, population, transit frequency, holidays) into the model pipeline.
- Compared AI-managed systems (e.g., Barcelona, LA) vs. static signal systems (e.g., Buenos Aires, Mumbai).
- Research findings form the basis for a planned **peer-reviewed publication** in urban AI applications.

Research And Development Specialist

WOOD-ID Project

September 2023 - June 2024, Barcelona, Spain

- Co-developed a machine learning pipeline to detect, classify, and optimise circular wooden components.
- Used image detection and nesting algorithms to improve material efficiency in fabrication workflows.
- Integrated fabrication constraints into the AI system to streamline design-to-production.

- Collaborated with a multidisciplinary team to test and prototype outputs using CNC and robotic arms.
- Presented project outcomes in IAAC's digital fabrication and circular design review panel.
- Demonstrated potential for scalable implementation in sustainable wood construction practices.

Architectural Intern

K12 Atelier

August 2022 - February 2023, Delhi, India

- Participated in the design execution and site supervision of a **4-story commercial complex** in Noida.
- Coordinated redlining of construction drawings on-site, minimising design errors by **15%**.
- Prepared 3D models and client presentation decks, contributing to the successful approval of 2 projects.
- Supported senior architects during vendor meetings, gaining exposure to real-world detailing challenges.
- Monitored procurement timelines, contributing to a **10-day improvement** in material delivery cycles.
- Assisted in preparing a design competition submission shortlisted in the **top 10 out of 100+ entries**.

EDUCATION

Master of Advanced Architecture (MAA)

Institute for Advanced Architecture of Catalonia, Barcelona • Barcelona, Spain • 09/2023-06/2025

Bachelor of Architecture (B.Arch)

Mysore School of Architecture, India • Mysore, India • 08/2018- 05/2023

AWARDS & HONORS

Best Project Award

IAAC, AI in Architecture Studio • 2023-2025

- Recognized for the "Wood-ID" initiative — an AI-powered mobile scanning tool that improved circular wood utilization by 25%.
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PUBLICATIONS

'Communique' captures transformative insights from an international conference on urban villages Book • UVCT, Communique

- 22-23 May 2022
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SKILLS

Architectural & Design Tools:

Rhino, Grasshopper, Revit, AutoCAD, SketchUp, Adobe Creative Suite (Photoshop, Illustrator, InDesign)

Data & Computational Skills:

Python, FastAPI, PyTorch, Streamlit, Graph ML, Machine Learning, Data Visualization, D3.js, SQL, Kepler.gl

Urban Systems & GIS:

QGIS, ArcGIS, Urban Simulation, Mobility Analysis, BIM Coordination, Sustainable Urban Planning

Project & Workflow Tools:

Project Management, Version Control (Git), Agile Collaboration, Digital Fabrication (CNC, Robotics)

Languages:

English (Fluent), Hindi (Fluent), Spanish (Beginner)



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