

# NIRMAL KUMAR KUMARASAMY

## Architectural Designer

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## Education

### Carnegie Mellon University, School of Architecture

Master of Advanced Architectural Design (MAAD)

/ Pittsburgh, PA / May, 2026

### MEASI Academy of Architecture, Anna University

Bachelor of Architecture (B.Arch)

/ Chennai, India / May, 2021

## Skills

- + **Design :** Rhino, Revit, Sketchup, AutoCAD
- + **Computational Tools:** Grasshopper, Rhino.inside, Revit, Dynamo, Python, QGIS, ROS, Climate Studio, Ladybug Tools

- + **Visualization:** Twinmotion, Lumion, V-Ray (Rhino), Enscape, Photoshop, Illustrator, InDesign
- + **Fabrication & Prototyping:** 3D Printing, CNC Fabrication, Laser Cutting

## Work Experiences

### Digital Fabrication Manager / CMU School of Architecture

/ Pittsburgh, PA / September 2025 - Present

- + Supported students with laser cutting and 3D printing, including printing student models, troubleshooting, and repairs.

### Research Assistant / CMU School of Architecture

/ Pittsburgh, PA / September 2024 - Present

*Working with Dana Cupkova, Associate Professor and Track Chair of the MSSD Program*

- + Conducting material and fabrication research on mycelium-bioplastic composites, alongside separate studies using wood and coffee waste, while developing custom extrusion toolpaths and optimizing 3D printing for structural stability.

### Senior Architect / NUDES

/ Mumbai, India / April 2023 - April 2024

- + Contributed to 20+ projects across airport terminals, high-rise residential and office buildings, wellness centers, villas, and religious spaces, working from concept design through construction documentation.
- + Developed conceptual terminal designs for three international airports. Served as a core member of the architectural team for the Guwahati International Airport New Integrated Terminal (13.1 MPA), which recently opened. Involved from concept through detailed design, leading the design of key passenger-facing spaces including departures, arrivals, security, lounges, retail, baggage claim, and concourses. Collaborated closely with HVAC, lighting, landscape, signage, façade, and BIM teams to coordinate building systems, interior finishes, green spaces, façade strategies, and design updates within a Revit-based model and construction documentation.
- + Designed and detailed facade systems for a 22-storey residential tower, producing fabrication drawings for a concrete fluted facade optimized to reuse aluminum formwork across podium and tower levels.
- + Used Rhino/Grasshopper to develop parametric, fabrication-ready designs with reusable scripts. Conducted site visits and managed teams of 3-6 members, overseeing task delegation, digital model organization, quality control, and intern mentoring.

### Junior Architect / NUDES

/ Mumbai, India / October 2021 - March 2023

- + Developed conceptual designs and competition submissions for international platforms, producing drawings, diagrams, and renderings for projects including Kew Tree House (Finalist) and LAGI Mannheim (Shortlisted).
- + Generated design iterations and fabrication drawings for the Edible Pavilion (2022), a 1,600 sq.ft modular structure, optimizing 1,985 cubes into 189 module types, enabling streamlined fabrication and efficient on-site assembly.
- + Built physical models and prototypes to test spatial ideas, material behavior, and construction logic, supporting iterative design development and effective communication of concepts.

### Architectural Intern / Larson & Toubro Construction

/ Chennai, India / July - October 2019

Project Name: Indian International Convention Centre (Yashobhoomi)

- + Supported large-scale infrastructure coordination using Revit and Navisworks, contributing to GFC drawings and BOQs.
- + Assisted in producing visualizations, VR walkthroughs, and physical models.

## Awards, Exhibitions and Press

- + Shubh-Laabh, Interactive art installation, exhibited at Yale CCAM Gallery, 2025
- + Guwahati International Airport, Winner – Airports and Transportation Centers, The International Architecture Awards
- + Guwahati International Airport, Silver – Urban Planning / Infrastructure / Transportation Hubs , IDA Design Awards

- + Indian International Convention Centre, Winner – Civic Centre Category, The International Architecture Awards
- + Satguru Rendezvous – Featured in ArchDaily and Dezeen, 2025
- + Kew Tree House Competition, Finalist, 2022
- + Radical Urban Intervention Competition, Winner (Student Category), 2020