

# Sriya Gayathri Thotakura

[LinkedIn](#) | [st3827@columbia.edu](mailto:st3827@columbia.edu) | [sriyagayathri007@gmail.com](mailto:sriyagayathri007@gmail.com) | +1 (646) 394 1242

Computational Designer and Architect currently pursuing an M.S. at Columbia GSAPP. Specializing in the intersection of Agent-Based Modeling, interactive data visualization and human-centered AI workflow.

## Education 2025 -2026

**Columbia University**  
**Graduate School of Architecture, Planning and Preservation**  
**M.S. Computational Design Practices**

2019-2024

**Jawaharlal Nehru Architecture and Fine Arts University**  
**Hyderabad, India**

Bachelors' in Architecture (5-year professional degree program); **GPA: 3.6/4**  
President and the founding member of the journalism club at SVCA.

2017-2019

**St. Andrews School | MPCC (Math, Physics, Chemistry, Computer Science (C++))**

## Technical & AI Skills

**Web Development & Data Visualization:** JavaScript, D3.js (Interactive Data Viz), Three.js (3D WebGL), React, Tailwind CSS, HTML

**Generative AI & Machine Learning:** [Stable Diffusion](#) (ControlNet, ComfyUI), Nanobanana and Gemini Veo, LLM Orchestration (Claude, NotebookLLM), Midjourney, Python (Data Analysis & ABM)

**Computational Design:** Grasshopper (Algorithmic Modeling), Rhino, Revit (BIM), Blender, CNC Laser/Digital Fabrication

**Spatial Analysis & Methods:** Mapping Systems (Information Architecture), QGIS, Photogrammetry, Permacomputing Principles, Microsoft Excel.

**Design & UI/UX:** Figma (Prototyping), Adobe Creative Cloud (Photoshop, Illustrator, InDesign), Enscape, V-Ray

## Relevant Coursework

**Computational Design:** [Generative Design](#), [Re-thinking BIM](#), Computational Modeling, Programming for Design Practices, Computational Design Workflows.

**Spatial Analytics:** [GIS for Design Practices](#), Mapping Systems, Mapping and Data.

**Management & Theory:** Leading Large Complex Projects (A+), Methods as Practices.

## Computational Research

**[Feral Atlas](#): Environmental Inequality & Regulatory Spillovers | GSAPP, 2025 – Present**

Developed a multi-layer visualization app mapping community interventions and regulatory spillovers to address urban flooding, air quality, and biodiversity.

Utilized Agent-Based Modeling (ABM) to simulate emergent environmental inequalities and their impact on diverse land-use factors.

Adopted Permacomputing principles to design a low-tech, resilient API infrastructure using cronjob-based "reluctant" mathematical modeling for long-term sustainability.

### **Regulatory Spillover Analysis: South Bronx | Case Study**

Quantified the correlation between truck-route interventions and high asthma rates in the South Bronx, proving it as a "40% grey city."

Mapped residential land-use against industrial spillover to identify "priority zones" for urban canopy and air quality intervention.

## Experience

2025 Apr-May

### LAD 360 | Junior Architect | Hyderabad, India

- Coordinating interior architecture for high-end residential and commercial projects (Aparna Serene Park, SAM Residence).
- Managing on-site supervision, documentation, and as-built updates while optimizing material costing and BOQs.

2023 Jul-Dec

### Studio PKA | Architectural Intern | Mumbai, India

- Contributed to adaptive reuse and corporate projects including the World Architecture Festival (WAF) 2023 nominated "Awas" project.
- Developed 3D models and high-fidelity renders using Enscape for client approvals and HVAC/electrical integration layouts.
- Facilitated interaction sessions between visiting architects, local artists, and students, bridging professional practice and architectural education.

2019-2024

### Freelance Design Projects | Consultant | Various, India

- Optimized space utilization for small-scale residential projects (up to 7,000 sq. ft.) through iterative 3D prototyping and computational layout modeling.

## Leadership Experience

- **Journalism Club Head | SVCA** Mentored a team of students in newsletter editing and literature event organization. Synthesized complex architectural theories into accessible editorial content.
- **Fashion Club Head | SVCA** Mentorship: Led junior students through "brief cracking" and conceptual design for National Association of Students of Architecture (NASA India) competitions, fostering a collaborative learning environment.
- **Cultural & Art Club Coordinator | SVCA** Designed educational briefs and instructional videos for the "Manthan 2024" annual fest. Hosted heritage walks and daily design challenges to build peer communities.

## Workshops & Conventions

- **LEAP Pangeo Hackathon (2026)** Urban Futures: Co-Creating Climate Resilience in NYC
- **The Pudding Data Viz Workshop** (2025) at the Brown Institute
- CEPT University Workshop (2021): Focused on etching, cyanotype, and freestyle art.
- Design Festival Mentorship Program (2021): Explored design principles and illustration development.
- ANC NASA Seminar (2022): Studied urban problem-solving through cartography.
- Certified through Workshops in Revit, Photoshop, and Charcoal.
- Conventions (2022-2023): Attended Indian Green Building Conference, Hyderabad; NASA India, Bengaluru; Architectural Digest Show, Mumbai.

## Competitions And Social Impact

- Observation & Action Network (OAN) Grant Program | 2021
- Collaborated with Akshaya NGO to document and design makeshift educational spaces in the Singareini slums.
- Analyzed the intersection of "social architecture" and underprivileged education, identifying critical needs for "anganwadi" caretakers.
- Academic Thesis: Mumbai Social Housing | Research & Design | 2024
- Authored research on "Making of Sustainable Malls" and "Adaptive Reuse," culminating in an urban-scale design thesis for a 15-minute city model in Mumbai's abandoned mill areas.
- Akshayaa Foundation: Documented assistance requirements for combating child malnutrition and education gaps in urban slums.