## CURRICULUM VITAE

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## EDUCATION

Carnegie Mellon University
Masters in Advanced Architectural Design

Pittsburgh, PA, USA
Aug '19 - Present

Dr. B. N. College of Architecture

Pune, India
Bachelor of Architecture (Professional)

Pune, India
May '14 - May '19

# ACADEMIC WORK EXPERIENCE

Carnegie Mellon University

Graduate Teaching Assistant
Generative Modelling and Parametric Design

Research Project Mentor - Volunteer
CMU Innovation Project - Environmental Impacts of COVID-19

Programming and Events Lead
CMU SoA Virtual Task Force

Graduate Teaching Assistant
Architecture and Arts

Fall '19

## PROFESSIONAL WORK EXPERIENCE

OpenIdeas LLP - Architectural Intern

Parametric Modeling for Furniture and Facades, Working Drawings,
On-site Progress tracking, Vendor- Client- Consultant Co-ordination

Ahmedabad, India
Jun '18 - Nov '18

Architekten Büro H. Mohr - Architectural Intern

Measure Drawing, Surveying and Levelling for Documentation for Churches,
Client Requirement Documentation, Responsible for On- site Co-ordination

Hochheim, Germany
May '17 - Jun '17

#### UNIVERSITY REPRESENTATION

Graduate Student Advisory Council Representative
Carnegie Mellon University

May '20 - Present

Class Representative
Dr. B. N. College of Architecture

Apr '17 - Apr '19

## CERTIFICATIONS

LEED AP (BD + C)
Issued by GBCI
Issued on Jul '20

CoA Licensed Architect
Council of Architecture, New Delhi
Issued on Apr '19



Pune

Pune

#### WORKSHOPS

#### IMS Bauhaus e.V. Archineer Institute, Anhalt University Membrane Structures Workshop Jan '17 - Jan '17

Form finding, Analysis, Design and Fabrication for

Tensile Structures using IxCube

Climate Change Advocate

**AA London Visiting School** Jun '16 - Jul '16

Digital Craft Workshop Theory of biomimetics and organic evolutions abstracted into innovative design / material solutions

OTHER INVOLVEMENTS

Citizen's Climate Lobby Oct '20 - Present

**Pune Model United Nations** Dec '16 - Jan '17 Volunteer

Action for Pune Development Jan '14 - Apr '16 NGO Volunteer

HONORS & AWARDS

Graduate Merit Scholar - Carnegie Mellon University Aug '19

SoA Incoming Student Scholarship

Student Leadership Award - Dr. B. N. College of Architecture Dec '18 Woman of Substance, Pillar of BNCA

SKILLS

Programming **Fabrication** 

Python Robotic Stereotomy Ruby+Sinatra 3D Printing, Laser Cutting HTMLCNC Routing, Woodshop Tools

**Performance Modelling** Computational Design

Ladybug Rhino 3D + Grasshopper DIVA Scripting in ghPython, RhinoScript ClimateStudio, Robotics ArchSim **HAL Robotics** 

EnergyPlus RobotStudio RAPID UI/ UX Tools Robot exMachina Adobe Suite

Microsoft Suite Modelling and Drafting Figma

AutoCad Sketch Revit



#### RELEVANT COURSEWORK

# Carnegie Mellon University

#### School Of Architecture

**Environmental Performance Simulation** 

Introduction to Architectural Robotics

Introduction to Computational Design

**Human Machine Virtuosity** 

Scripting and Parametric Modelling in ghPython

Programming for Online Prototypes

**Architectural Theory** 

Advanced Synthesis Studio: Low Relief, Environment Form & Feedback

#### **School Of Computer Science**

Introduction to Programming and Computer Science

# **Human Computer Interaction Institute**

Service Design

## ACADEMIC PROJECTS & RESEARCH

## Carnegie Mellon University

# (e)Mulate AEC : Gesture Based Industrial Robot Programming and Cloud Management Interface for Skill Replication and Intuitive Teaching

collaborated with Vishal Vaidhyanathan

An interface for Programming industrial Robots with human gestures along with a cloud-based task management system for ubiquitous synchronization of programmed tasks. Intended to replicate repititive tasks in the early construction process in AEC, without the need of a programmer as a middleman. The cloud management helps in synchronizing programmed tasks to all robots in the network, eradicating individual programming of every task to every machine.

#### **GAN You Draw?**

GAN You Draw? is a paradigm for using Generative Adversarial Networks as an aid for architectural design. It consists of a Python front-end with a tkinter-based interface for the image generation and transfer workflow where RunwayML serves as the backend for processing and generating the images.

#### VastuBot

VastuBot is an SMS based chatbot that helps users have authentic information about Vastu-Shastra, gives them tips on making their home Vastu-compliant and busts common myths about Vastu. It is developed using Ruby and deployed using Heroku and Twilio.

#### Aggregated Assemblies: A Structurally-Driven, Agent Based Generative Architecture

A design environment in ghPython based on a paradigm for reviving an ancient roofing construction system - Tubi Fittili, where terracotta pots are stacked to form roofing structures. With an aim to generate new structures, an agent based modelling system was incorporated alongside a procedural angle accumulation approach for aggregation.

## MetaMorph: Robotic Plastering Research- Human Machine Virtuosity

collaborated with Maria Vlachostergiou & Mike Xu

Traditionally, the running mold technique in plaster casting had the blade profile run over a fixed linear path. Leveraging on the range of the six-axis robot, we attempted to maximize the limits of the traditional plastering tools to generate non-linear, doubly curved profiles with the help of a customized polymorphic tool.