

# Seetharaman Subramanian



I am a multidisciplinary design engineer who thrives in the intersection of mechanical design and engineering. I am passionate about creating user-centred, function-driven sustainable solutions.

## EXPERIENCE

**Entocycle**, London — *Junior Mechanical Design Engineer - NPD*

MAR 2022 - PRESENT

- Developed new products for the UK's **leading insect farming** technology provider
- Improved the **precision** of the [Entosight Neo](#) by **15%**; neonate **survivability** by **20%**
- Optimised the testing and breeding chambers, improving yield of eggs laid by **25%**
- Worked closely with prototyping & production partners to **bring designs to market**
- Streamlined feed production and increased operator safety and efficiency by **100%**

**Bang Design**, Bengaluru — *Product Designer*

DEC 2017 - JUNE 2018

- Worked with [FreeBowler LLC](#) on their bowling equipment for school cricket training
- Reduced the **weight**, operational force and **assembly time** of the equipment by **25%**
- Prototyped and performed **multiple design iterations** with client & local partners
- Conducted a force and vibration analysis to **reduce** the machine **vibration** by **67%**
- Created production-ready **2D drawings** for manufacturing machines sold currently

**Aalto University**, Helsinki — *Design Researcher*

MAY 2017 - JULY 2017

- Chosen among **200 global applicants** in the Building Information Management group
- Designed the SpacyPhy Ecosystem and increased the net spatial **efficiency** by **30%**
- Worked with [Prof. Vishal Singh](#) to research the future of sustainable flexible housing

## PROJECTS

**Boond** — *Masters thesis project, Imperial College London, [Dr. Nejra Van Zalk](#)*

- Designed and developed an **AI system** for users' daily water utilisation measurement
- Helped users monitor and **reduce** their water consumption to **10 minutes** per day
- Wrote a **scientific report** on data measurement and visual, audio feedback systems
- Built and tested an Arduino based **edge-computing** device for local processing
- Implemented audio-based **machine-learning** algorithms using [Google Audioset](#)

**Solar Still** — *Masters thesis project, IIT Madras, [Dr S. Bandyopadhyay](#)*

- Created a passive, **solar-powered still** for rural India to **purify** water for **drinking**
- Targeted output of **5L/m<sup>2</sup> per day**, exceeding the yield in existing literature by **10%**
- Iterated various design parameters and materials to increase **water output** by **20%**
- Built **sheet metal designs** and prototypes for data collection and design iterations

**Shape** — *Designing the Future of Music, [Dr. Leila Sheldrick](#)*

- Worked with [BST Hyde Park London](#), [California College of the Arts](#) and [Lad Design](#)
- Designed and prototyped **diverse visualisations** of the musical persona of a user
- Combined user's listening history and their **physiological responses** in their persona

**Project RP** — *Design of an automobile, [Dr. C. S. Shankar Ram](#)*

- Designed and specced all the sub-systems of a **high-end electric hot-hatchback**
- Specified a technologically accurate **powertrain**, transmission & suspension system
- Designed and **rendered** aesthetic elements, created a scaled down **clay model**

- [Website](#)
- [Email](#)
- [LinkedIn](#)
- [Instagram](#)
- [RCA Show 2021](#)

## EDUCATION

**Imperial College London, Royal College of Art,**

London — *MSc & MA in Global Innovation Design*  
SEP 2019 - AUG 2021

**Tsinghua University,** Beijing — *International Exchange in Global Innovation Design*

MAR 2020 - JUNE 2020

**Indian Institute of Technology Madras,** Chennai — *B. Tech/M. Tech in Engineering Design*

AUG 2014 - JULY 2019

## SKILLS

**Computer-aided Design, Finite Element Analysis and Rendering**

using Solidworks, Flow Simulation, Autodesk Inventor, Fusion 360, Maya and Keyshot

**Rapid Prototyping** using 3D printing, woodworking, sheet metal manufacturing and metalworking

**Data and Model Analysis** using Matlab, Mathematica, MS Excel, Tableau, R and Python

**Project Planning and Ideation** using Miro, Notion, Trello, Microsoft Suite and G-Suite

**Document, Photo and Video Editing** with Adobe Photoshop, Adobe Lightroom, Adobe Premiere Pro, Adobe After Effects, Adobe Illustrator and Adobe InDesign