# Manas Biju

1012 W Illinois St, Room 0921 Urbana, IL 61801

### **Education**

Bachelor of Science in Aerospace Engineering/Computer Science??? University of Illinois Urbana-Champaign May 2021

High School Diploma International Baccalaureate Diploma Programme (IBDP) Canadian International School, Singapore, May 2016 GPA: 4.00/4.00

#### **Technical Skills**

Languages: Pure Data, MaxMSP, Arduino IDE, Python

Applications: Autodesk inventor, Cura, Adobe Illustrator, Adobe Photoshop, TouchDesigner, Unreal Engine

## **Experience and Accomplishments**

Coauthor - "Design and Development of an Indoor Autonomous Airship" for AIAA Forum 2017

- Coauthored with Prof Rajkumar Pant, IIT Mumbai (IITB), a paper titled "Design and Development of an Indoor Autonomous Airship." based on the control system that I deigned and developed.
- Presented at American Institute of Aeronautics and Astronautics Aviation (AIAA), Aviation Forum at Denver, 2017

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Coauthor - "A Smartphone Operated Indoor Autonomous Airship," 2017

- Coauthored paper "A Smartphone Operated Indoor Autonomous Airship" with Professor Rajkumar Pant, IITB
- To be presented and published at the 11<sup>th</sup> International Airship Convention and Regatta, Bedford, United Kingdom, 2017

Research Assistant - Nanyang Technological University (NTU), Singapore. August 2016 - August 2017

- Designed and developed a prototype tool to understand concepts such as dislocations and deformations in lattice structures, strain energy, and ionic lattices
- Developed using a game engine, Unreal Engine 4

Interactive Control System Designer for a video Installation, 2017

- Designed and developed the interactive control system for the installation, "Workers Taking Over the Factory' by Ahmet Ogut and Aziz Kachwala
- It involved development of hardware and software using Arduino, Raspberry Pi and custom built boards
- Exhibited at the Kochi-Muziris Biennale 2017.

#### Programmer - "In Memory II" 2016

- "In Memory" is an interactive sound-art installation that was exhibited at the Solomon R. Guggenheim Museum, New York in 2012. "In Memory II" is the next version of the installation and as programmer, I have worked in close collaboration with the original team of artists lead by film maker Kabir Mohanty
- Designed and integrated a nonintrusive interactive control system using visual programming software TouchDesigner.

Programmer/ Designer - "Salmon" 2015 - 2016

- Designed and prototyped an omnidirectional radio controlled robot that employed a holonomic drive system.
- Coded and flashed algorithms onto Arduino microcontroller boards using the Arduino IDE language (originated from the IDE for the languages Processing and Wiring)

Team Leader at Code Camp 2, Singapore 2015:

- Lead a team at a three day, inter-school coding event organized by Code Avengers.
- Designed and created an interactive website targeted at children aged 3-6, based on Solar System.
- The website was one of the top three at the event