Akash Muni

Date of birth: 03/07/1998 | **Place of birth:** Mumbai, India | **Nationality:** Indian | **Phone number:** (+91) 9969940942 (Mobile) |

Email address: muni.akash@gmail.com | **Website:** https://bratcoder-crypto.github.io/meinbits/index.html |

Address: 424/Bldg No. 6, Jai Shree Siddhivinayak C.H.S, Sambhaji Nagar, Sahar Road, Andheri East, Mumbai, 400069, Mumbai Suburban, India (Home)

ABOUT ME

I am a balanced, diligent, and highly capable technical professional with a strong analytical mindset. With a background in physics and hands-on experience in advanced laboratory environments, I excel in both independent and team-based research settings. Having completed my Master's degree and worked in a reputed physics lab for over two years, I am eager to apply my expertise to research in additive manufacturing. I am particularly interested in exploring innovative materials, optimizing 3D printing processes, and advancing the applications of additive manufacturing across various industries. My goal is to contribute to groundbreaking research that enhances the efficiency, precision, and scalability of 3D printing technologies. With a proactive approach and a strong commitment to scientific inquiry, I aim to play a vital role in pushing the boundaries of additive manufacturing through data-driven experimentation and analysis. I am particularly interested in interdisciplinary research techniques.

WORK EXPERIENCE

04/2022 – CURRENT Mumbai, India
PROJECT SCIENTIFIC ASSISTANT - B HBCSE (HOMI BHABHA CENTRE FOR SCIENCE EDUCATION)

- Working as a Scientific Assistant in the NIUS Physics Laboratory.
- Expertise in handling FDM and SLA 3D printers, both at the hardware and software levels.
- Providing hands-on training to students, staff, and teachers on effectively using 3D printers and their software to enhance learning and innovation.
- Slicing and 3D printing designs using FOS Software and 3D printers. Hands-on experience in using Onshape (browser-based CAD modelling Software).
- CAD modelling of experiments and custom parts needed for undergraduate-level experiments.
- 3D-modelled Optical Black Boxes. (Optical black boxes are UG-level optical experiments where students are expected to study a given box that has various optical components and find their parameters such as focal length, grating spacing etc.)
- 3D-modelled detector mount used in the Polarization experiment.
- Handling all operations related to the National Initiative for Undergraduate Sciences (NIUS) Physics.
- Testing and setting up various types of undergraduate-level experiments.
- Worked with project students selected for the NIUS project (teaching and explaining various experiments and concepts related to physics). Also worked with Project students on various aspects of education research-based topics.
- Extensively worked on a project which involved the interference of light due to Ophthalmic lenses. Studied various types of lenses and their pattern formed due to interference.
- Training and guiding selected students representing India for the IPhO (International Physics Olympiad) in the experimental aspect.
- Designed and developed electronic instruments and parts related to various experiments.
- Developed instruction manuals and handouts for experiments, setups and instruments.
- Photographing of various instruments with a reference scale so that these can be reproduced easily by institutes, colleges and industries.
- Troubleshooting, testing, and assembling various types of equipment and electronic instruments.
- Working with Professors on various programs like Vigyan Vidushi (VV), and College Visit at HBCSE happening throughout the year.
- Ordering and managing all cash purchases of relevant lab instruments.
- Maintaining the NIUS physics lab and completing various day-to-day administrative tasks.
- Participating in various outreach programs organized by the Tata Institute of Fundamental Research (TIFR), Colaba, Mumbai.
- Assisting other professors in setting up and explaining various physics experiments at the National Science Day event hosted by the HBCSE.

Business or Sector Professional, scientific and technical activities | **Website** https://www.hbcse.tifr.res.in/

05/2018 – 07/2018 Mumbai, India
VISTING STUDENT RESEARCH PROGRAM(VSRP) TATA INSTITUTE OF FUNDAMENTAL RESEARCH (TIFR)

- Worked as a Research Student under the Guidance of Prof Rudrajyoti Palit at the DNAP (Department of Nuclear and Atomic Physics), TIFR, Mumbai.
- Worked on fabricating Thin Target Foils Using different methods (Sputtering, Resistive Heating. etc).
- Specialized in making foils using the Pressure Rolling Method for Target Preparation.
- Studied and worked on Measuring target foil thickness using an Alpha source.

- Studied the theoretical aspects of Lifetime Measurements of nuclear states using the Recoil Distance method (RDM).
- Worked on calibrating a Piezoelectric Actuator using capacitance induced between two thin films mounted on the actuator.

Business or Sector Professional, scientific and technical activities | **Website** https://main.tifr.res.in/

01/2020 – 05/2020 Mumbai, India
COURSE DEVELOPER INTERN MYQUESTIONBOX EDUCATION OPC PVT LTD

- Developed new questions and content for various competitive exam practice tests, such as NEET and JEE.
- Typed questions and equations using suitable LaTeX and HTML editors.
- Checked each question to ensure proper display on the website.
- Developed content for subjects like Biology and Chemistry as well.
- Handdrew diagrams and images related to biology and chemistry

SKILLS

OnShape - CAD modelling | Microsoft Office | Orca | LaTeX (very good) | Python Language - Basic knowledge | Linux (Terminal Commands, Bash/Shell) | Hardware Debugging | Photo and photo editing skills | Video editing and video making

CERTIFICATIONS

Python Basics

Fully online course on Python programming language basics.

Link https://www.sololearn.com/Certificate/CT-JOY5OKIJ/pdf

Command Line basics in Linux

An online non-credit project authorized by Deprecated Guided Projects and offered through Coursera.

Link https://www.coursera.org/account/accomplishments/verify/UYFZ9BLG5YL3

SSCA

SIP School Certified Associate

Link https://drive.google.com/file/d/1EhQaCjdKzSRs_wBk95dDVAKBI5jy-jOr/view

EDUCATION AND TRAINING

2020 – 2022 Mumbai, India
MASTER OF SCIENCE (M.SC) Dr. Homi Bhabha State University

Website https://hbsu.ac.in/ | **Field of study** Solid State Physics | **Final grade** 9.61 / 10 | **Level in EQF** EQF level 7 |

Thesis Synthesis Of Thin Target Films for Nuclear Research and their Thickness Measurement using Alpha Source

2016 – 2019 Mumbai, India
BACHELOR OF SCIENCE (B.SC) University of Mumbai

Final grade 8.44 / 10 | **Level in EQF** EQF level 6

Mumbai, India
HIGHER SCEONDARY CERTIFICATE (H.S.C) The Maharashtra State Board of Secondary and Higher Secondary Education

LANGUAGE SKILLS

Mother tongue(s): **ODIA**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C2	C2	C2	C2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user