

Shaunak Guha

🔗 Research Scientist 📅 24 years
✉ mr.shaunakguha@gmail.com 📍 Kolkata, India

LINKS

🌐 LinkedIn://shaunakguha
📄 ResearchGate://Shaunak-Guha
🐙 Github://psyqe

EDUCATION

M.Sc. IN PHYSICS

St. Xavier's College, Kolkata
University of Calcutta
Division : First Class
Nov 2020 | CGPA : 7.42 / 10

B.Sc. IN PHYSICS (HONOURS)

St. Xavier's College, Kolkata
University of Calcutta
Division : First Class
July 2018 | CGPA : 6.79 / 10

ISC (CLASS 12)

St. Joseph's College, Kolkata
Council for the Indian School
Certificate Examinations
June 2015 | Score : 95.75 %

ICSE (CLASS 10)

St. Joseph's College, Kolkata
Council for the Indian School
Certificate Examinations
June 2013 | Score : 91.4 %

SKILLS

Programming

• Java • Python • C++ • Assembly •
• Matlab • SQL • \LaTeX • Bash/Shell •

Soft Skills

• Fast learner • Organized workflow •
• Open minded • Adaptive • Curious •

Disciplines

• Nanotechnology • Electronics •
• Solid state physics • Analytics •

Languages

• English - 4.5 / 5
• Bengali - 4.5 / 5
• Hindi - 4.0 / 5

EXPERIENCE

PROPHECY SENSORLYTICS | Research Scientist

December 2021 – Present | Kolkata, India | 8 months

- Interdisciplinary and collaborative R&D on sensor design using materials engineering, circuit modelling, data science & UI/UX of final product
- A typical work week includes sensor prototyping, characterisation, device testing & improvisation, data analysis, firmware & middleware revision, up-scaling for fabrication, production planning and project management

CHEGG INC. | Advanced Physics Expert

March 2021 – Present | Part-time

- Solved problems & doubts on topics from high-school and undergraduate physics, mathematics and computer science.

RESEARCH & PROJECTS

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE (IACS, KOLKATA) | Research Consultant

February 2021 - August 2021 | Kolkata, India

- Designed and programmed a stable and configurable DC supply tool for characterisation and routine testing of solid-state electrochromic device prototypes in the lab of **Prof. Subhadeep Datta** and **Prof. Sudip Malik**

ST. XAVIER'S COLLEGE, KOLKATA | Master's Dissertation

July 2019 - March 2020 | Kolkata, India

- Fabricated CZTS thin films using SILAR for use as thin film solar cells and studied their active surface using SEM-EDX to analyze ion adsorption [1]

INDIAN INSTITUTE OF TECHNOLOGY (IIT), BOMBAY | Internship

June 2019 | Mumbai, India

- Participated in FOSSEE (Free/Libre Open Source Software for Education) Summer Fellowship 2019 in the Arduino domain
- Created a 2-player pingpong game that can be played on a 16x2 LCD
- Published an online simulation on Autodesk TinkerCAD [Link]

ST. XAVIER'S COLLEGE, KOLKATA | Bachelor's Dissertation

October 2017 - April 2018 | Kolkata, India

- Using motion tracking, studied the movement of a levitating oscillator to estimate parameters of a hypothetical empirical formula using curve fitting

RAMAKRISHNA MISSION VIVEKANANDA EDUCATIONAL AND RESEARCH INSTITUTE (RKMVERI) | Research Consultant

2017 - 2018 | Howrah, India

- Developed a room-wide Arduino-controlled training setup that trains and tracks progress of directional auditory perception of visually impaired people [2]. Successful trials in local schools for blind children.
- IP accepted (**Design No.: 305795**) and published in the Official Journal of the Patent Office, Govt. of India (**Journal No.: 27/2019, Pg. 28999**) [3]

TESTS

2021 **GATE** (Physics) Rank : 2050

REFEREES

Dr. Kallol Mohanta

Senior Research Scientist & Team Lead

🏢 Prophecy Sensorlytics Pvt Ltd

✉ kmohanta@gmail.com

Prof. Gayatri Banerjee

Assitant Professor

🏢 St. Xavier's College, Kolkata

✉ gayatri_banerjee@sxccal.edu

Prof. Aditi Ghosh

Assistant Professor

🏢 St. Xavier's College, Kolkata

✉ aditi@sxccal.edu

PUBLICATIONS & PATENTS

- [1] S. Guha, M. S. Haque, A. Gon, and G. Banerjee. Analysis of adsorption of ions under different preparative precursors. *Aviskaar: A Xaverian Journal of Research*, Volume 13:Pg. 24–32, February 2021. ISSN 2278–1048.
- [2] T. Prasad, S. Guha, K. Bose, S. Ghosh, and A. Goswami. Arduino based randomized audio source generator for testing spatial orientation ability of visually impaired persons. *International Journal of Advanced and Innovative Research*, Volume 8(5), May 2019. ISSN 2278–7844.
- [3] T. Prasad, S. Guha, K. Bose, S. Ghosh, and A. Goswami. Audio game set for the visually challenged. *The Patent Office Journal, Govt. of India*, Journal No. 27/2019(155):Pg. 28999, July 2019.

COURSEWORK

GRADUATE

Solid State Electronics, Nanomaterials, Quantum Physics, VLSI, Digital Signal Processing, μC - μp Architecture, Open Source Computing, Group Theory, Optoelectronics, Communication Theory, Computational Physics | **Course Link**

UNDERGRADUATE

Statistical & Quantum Mechanics, Non-linear Dynamics, Chaos Theory, Electrostatics & Electrodynamics, Electrical Circuits, RDBMS, | **Course Link**