Sabyasachi Mukherjee

[Website](#)

Personal Data

Place and Date of Birth:	India | 05 August 1992
Present Place of Residence:	Shiki City, Saitama Prefecture, Japan
email:	sabyasachimukherjee2006@gmail.com

Publications

Neural Sequence Transformation	Sabyasachi Mukherjee, Sayan Mukherjee, Binh-Son Hua, Nobuyuki Umetani, Daniel Meister
	A data-driven approach to applying sequence transformation to Monte Carlo integration. Link to project page.

Work Experience

Jul 2014 – Mar 2016	Senior Software Engineer at Samsung R&D Institute, Bangalore (SRI-B), India
	Worked as a Software Engineer, and subsequently Senior Software Engineer on the app and middleware layers of an in-house Android Digital TV app on devices geared at the Japanese market. Customers included NTT Docomo, KDDI and Softbank, the top 3 telecom operators in Japan.

Education

Oct 2018 – Present	Doctoral Course 4th Year Student, **The University of Tokyo**
	Graduate School of Information Science and Technology (IST),
	Department of Creative Informatics
	Advisors: Prof. Nobuyuki Umetani (current), Prof. Toshiya Hachisuka (previous)
	Broad theme of research: **Computer Graphics**
	Themes of research: Light Transport Simulation (Physically Based Rendering) Non-Photorealistic Rendering (NPR)
Oct 2016 – Sep 2018	Master's Student, **The University of Tokyo**
	Graduate School of Information Science and Technology (IST),
	Department of Creative Informatics
	Advisor: Prof. Toshiya Hachisuka
	Broad theme of research: **Computer Graphics**
	Theme of research: Light Transport Simulation (Physically Based Rendering) and Computational Statistics
Apr 2016 – Sep 2016	International Graduate Research Student, **The University of Tokyo**
	Graduate School of Information Science and Technology (IST),
	Department of Creative Informatics
	Advisor: Prof. Toshiya Hachisuka
	Broad theme of research: **Computer Graphics**
Jul 2010 – May 2014	Bachelor of Engineering (BE), **Jadavpur University**, Kolkata, India
	Specialization: **Computer Science and Engineering (CSE)**
	Cumulative GPA: 8.43 / 10

Scholarships and Certificates

Apr 2016 – Aug 2021	Receipient of the **Monbukagakusho (MEXT) Scholarship** under **Embassy Recommendation**
Online courses	**Cryptography I** at Coursera, 2013 Instructor: Dr. Dan Boneh, Stanford University Course Record: **92.7%**.

Languages Known

Bengali	Native language
English	Native or bilingual proficiency
Japanese	Professional working proficiency (JLPT N1)
Hindi	Limited working proficiency

English Proficiency

Jun 2013	GRE	Scored **325 / 340** marks, and **5.0 / 6.0** in the Analytical Writing section.
Sep 2015	TOEFL-iBT	Scored **118 / 120** marks.
Oct 2019	TOEFL-iBT	Scored **113 / 120** marks.

Japanese Proficiency

Jul 2012	JLPT N5	Scored **166/180** points and cleared the exam.
Dec 2012	JLPT N4	Scored **170/180** points and cleared the exam.
Jul 2013	JLPT N3	Scored **151/180** points and cleared the exam.
Dec 2013	JLPT N2	Scored **103/180** points and cleared the exam.
Dec 2014	JLPT N1	Scored **101/180** points and cleared the exam.
Jun 2015	Business Japanese Test	Scored **448** points and passed with level **J2**.

Programming Experience

Languages known	• C, C++, C++11 • Rust (Basic) • LaTeX (Basic)

Interests

- Light Transport Simulation / Physically Based Rendering
- Non-Photorealistic Rendering (NPR)
- Japanese Anime production
- Localization of Visual Novels

Internships

Jun 2013 – Aug 2013	Underwent summer training at **Tata Consultancy Services Limited (TCS)**, one of the largest India-based IT services companies.
	• Did a project named **TSDSDF: Time Series Sensor Data Storage and Feed**, which consisted of a combination of two sub-projects:
	  - Deploying and testing Hadoop, HBase and OpenTSDB along with their new features like millisecond timestamps, HTTP RESTful API and Debian packages.
	  - Developing and deploying a proof-of-concept implementation of sensor feeds using Websockets.

Sep 2019	Worked as an intern for 5 days assisting Mr. Nao Hirasawa at **ARCH Inc.**, a Japanese animation (anime) production studio. Observed meetings in various stages of anime projects, and learnt various managerial skills, as well as about the anime industry.

Projects

- Currently working on a ray tracer in Rust called **Sayo**, which is the successor of a toy ray tracer written in C++. The code is open-source and on Github under a permissive license: https://github.com/smukherjee2016/sayo_pbr_rs.

- The source code for the toy ray tracer is also public and is available at: https://github.com/smukherjee2016/ToyRT2018.

- Worked with Dipankar Das on a project on **Identifying speaker and their features from subtitle files** under Prof. Sivaji Bandopadhyay, H.O.D., Computer Science and Engineering Department, Jadavpur University.

- Worked as an English-to-Bengali translator for the **EILMT project** under Prof. Sivaji Bandopadhyay, H.O.D., Computer Science and Engineering Department, Jadavpur University.

Other Achievements

- Worked both as a teacher for teaching Computer Science and Programming to high-school students using Scratch and Sony MESH as part of short-term programs, and as a group leader facilitating conversation in English amongst middle and high-school students across several schools in Japan as a part-time employee of **ISA, Inc.** since June 2018.

- Volunteered from October 2016 to May 2018 for the **English Shower** programme at **Kudan Secondary School** in Tokyo, interacting with junior and senior high school students and (trying to) make English learning fun for them.

- Successfully completed a 1-month long business trip to Tokyo, Japan to provide support for the team while employed at Samsung R&D Institute, Bangalore in November 2015.

- Successfully completed a course on Java Programming at the age of 10 from NIIT, Cooch Behar in 2002, and scored 73%.

- Completed a course on "Swift Net Weaver" and "Swift India" from NIIT, Cooch Behar, India in 2002.

- Completed two courses on Visual FoxPro 6 and Visual Basic 6 in 2003–2004 from Net Wizzard, Hooghly.

- Was selected for an educational visit to Japan for one week in June 2014 under the JENESYS 2.0 programme for SAARC Countries as a Japanese language student.

Hobbies and Miscellaneous

- Hobbies are mainly reading books, as well as watching Japanese anime and riding trains.

- Most favorite electronic device: the **PlayStation Vita**.