# Sabyasachi Mukherjee

# Personal Data

PLACE AND DATE OF BIRTH: India | 05 August 1992

Present Place of Residence: Shiki City, Saitama Prefecture, Japan

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EMAIL: sabyasachimukherjee2006@gmail.com

## 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

Aug 2021 – Dec 2021 Systems Support Desk at Graphinica Inc., Japan

Worked in the Systems Department for the 3DCG team at Graphinica Inc., one of the premier animation studios in Japan. Provided IT support to artists and other staff within the company.

#### EDUCATION

OCT 2018 - Present Doctoral Course 3rd Year Student, The University of Tokyo

Graduate School of Information Science and Technology (IST),

**Department of Creative Informatics** 

Advisors: Prof. Toshiya HACHISUKA and Prof. Nobuyuki UMETANI

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 – Present Receipient of the Monbukagakusho (MEXT) Scholarship under

**Embassy Recommendation** 

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.  |
| Ост 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 <b>151/180</b> 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)
  - Lasic)

## **INTERESTS**

- Light Transport Simulation / Physically Based Rendering
- Computational Statistics
- 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.

# **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.
- Worked as an intern for 5 days in September 2019 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.

#### OTHER ACHIEVEMENTS

- Volunteered from October 2016 to June 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 apart from fansubbing are mainly reading various things, as well as watching Japanese anime and riding trains.
- Most favorite electronic device: the PlayStation Vita.