Rajib Chandra Das

Date of birth: 04/10/1992 | **Gender:** Male | **Phone number:**

(+49) 017636368708 (Mobile) | **Email address:** aporba.das@gmail.com |

Address: Tonberg 6, 24113, Kiel, Germany (Home)

WORK EXPERIENCE

10/2022 – 31/05/2024 Hamburg, Germany
SOFTWARE ENGINEER C++ SMARTCLIP EUROPE GMBH

- experienced with **Digital Advertising** solution that handles 1.9 billion requests per day.
- implemented stricmp(case-insensitive string comparison) using **assembly x86_64** with **SSE4.2** instructions, which outperforms currently available solution https://linux.die.net/man/3/strncasecmp, resulting 20% faster execution in the whole process.
- generated graphs for comparing and visualizing different implementations for benchmarking using **Python**
- experienced in monitoring tools i.e. **Prometheus**, **Grafana**, **Greylog**.
- worked on 25+ refactoring, improvement, feature and bug tickets mostly in **C++17**.
- wrote 50+ new unit tests (**Google Test**) for newly added implementations.

Skills: **C**, **C++**, **C++17**, **Python**, **Assembly**, **Prometheus**, **Grafana**, **Graylog, Digital Advertising, Jira, Git, Jenkins, Google Test, GNU Debugger, Makefile, Protocol Buffers, Docker, Linux, Bash**

30/06/2019 – 09/2022 Kiel, Germany
FULL STACK DEVELOPER (PART-TIME) WOBE-SYSTEMS GMBH

- played a key role in design, development and improvement of web-based applications.
- worked with 4 different highly functional web applications, implemented 50+ features.
- implemented 100+ APIs(**REST**, **GraphQL**) interacting with databases i.e. **PostgreSQL**, **MongoDB**.
- worked with various industry-adopted technologies and frameworks i.e. **Bootstrap**, **Flask**, **jQuery**, **Prisma** etc
- worked with projects based on **Microservice** architecture.
- wrote 200+ unit tests to verify the back-end functionalities.
- documented 100% of technical specifications and dependencies of applications.
- designed recursive data structures to analyze, process through different services and visualize into the workspace.

Skills: **JavaScript, TypeScript, Python, Go, Node.js, Express.js, Vue.js**, **REST, GraphQL, MySQL**, **PostgreSQL**, **MongoDB**, **Prisma**, **Jira**, **Git, Microservice, Docker, Kubernetes**

30/09/2015 – 29/09/2018 Dhaka, Bangladesh
SOFTWARE ENGINEER IPVISION CANADA INC

- worked with Social Network solution, currently reached 5 million downloads (https://bit.ly/4aJc9Rq).
- designed and implemented Cross-Platform SDK for audio and video data processing.
- worked with conversion, mirroring, rotating, scaling, cropping for different raw audio, image and video data like **RGB24**, **RGB32**, **YUV-I420**, **YUV-NV12**, **YUV-NV21**, **YUY2**, **BMP**, **PCM**, **PNG**.
- worked with encoder and decoder like **H.264**, **G.729**, **Opus**.
- implemented Bi-Lateral filter, Gaussian filter based on recently published paper to get smoother output during video call/live-stream.
- experienced in **Jenkins**, **OwnCloud** to perform automated release and distribute files for all platforms.
- optimized solutions using raw **assembly** for **arm32** and **arm64** platform with NEON extension, resulting 16 times faster execution time.

Skills: **C, C++, C++11, Java, Objective-C, assembly, Android Development, Android Studio, iOS Development, XCode, Jenkins, Owncloud, FFMPEG, VideoCodec, AudioCodec, Docker**

30/04/2014 – 29/09/2015 Dhaka, Bangladesh
SOFTWARE ENGINEER EYEBALL NETWORKS

- designed and implemented real time transcoding server for video data i.e. **H264** and **VP8**
- implemented signaling for audio/video call among **SIP** and **WebRTC** client.

- integrated **OpenH264** Encoder & Decoder based on standard protocol, RTP payload construction follows **rfc6184**.
- integrated **VP8** Encoder & Decoder based on **rfc6386**.
- integrated **MS-RTP** Protocol to communicate with Lync 2013.
- added Google Test Framework for unit testing.
- solved 50+ bugs and memory leaks, experienced in debugging tools i.e. **Valgrind**, **GDB**.

Skills: **C, C++, SIP, WebRTC, MS-RTP, VP8, H264, VoIP, TCP/IP, Google Test, Valgrind, GDB**.

EDUCATION AND TRAINING

30/09/2018 – CURRENT Kiel, Germany
MASTER IN COMPUTER SCIENCE Christian-Albrecht University of Kiel

Website https://www.uni-kiel.de/de/

31/01/2010 – 27/02/2014 Sylhet, Bangladesh
BACHELOR IN COMPUTER SCIENCE Shahjalal University of Science and Technology

Website https://www.sust.edu/ │ **Final grade** CGPA - 3.52 out of 4.00 │

Thesis Ranking the Locations and Predicting Future Crime Occurrence by Retrieving News from Different Bangla Online Newspapers.