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RAJIB CHANDRA DAS

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WORK EXPERIENCE

Software Engineer C++   **Smartclip Europe GmbH (Hamburg)**   **October 2022 – May 2024**

- 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.
- generated graphs for comparing and visualizing different implementations for benchmarking
- experienced in monitoring tools i.e. **Prometheus**, **Grafana**, **Greylog**.

Full Stack Developer (Part time)   **Wobe-Systems GmbH (Kiel)**   **July 2019 – September 2022**

- 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

Software Engineer   **IPVision Canada Inc. (Dhaka)**   **October 2015 – September 2018**

- 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**.
- optimized solutions using raw **assembly** for **arm32** and **arm64** platform, resulting 16 times faster execution time.

Software Engineer   **Eyeball Networks (Dhaka)**   **May 2014 – September 2015**

- 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**.

EDUCATION

- Masters in Computer Science
  - ➢ University: **Christian-Albrechts-Universität zu Kiel, Germany**
  - ➢ Thesis: Feature extraction from unstructured clinical notes - A comparison of pretrained models.
  - ➢ Final Grade: 2.0
  - ➢ Year of Passing: 2025
- Bachelor in Computer Science and Engineering
  - ➢ University: **Shahjalal University of Science and Technology, Sylhet, Bangladesh**
  - ➢ Thesis: Ranking the Locations and Predicting Future Crime Occurrence by Retrieving News from Different Bangla Online Newspapers.
  - ➢ Final Grade: 1.7
  - ➢ Year of Passing: 2014

SKILLS

- Programming Language: C++, Python, Java, JavaScript, TypeScript, HTML, CSS, Assembly, Go, Objective-C, C#.
- Tools: Git, Jira, Jenkins, Prometheus, Grafana, Graylog, Google Test, Valgrind, Prisma, Protocol Buffer.
- Web Development: Node.js, Express.js, Vue.js, React.js.
- Frameworks and Libraries: STL, BOOST, TensorFlow, PyTorch, Keras, NumPy, Pandas, Scikit-Learn, Matplotlib, SpaCy, Stanza, Tkinter, Flask, FastAPI, Bottle.
- Database: MySQL, PostgreSQL and MongoDB.
- Operating System: Linux (Ubuntu), Linux (CentOS), MacOS, Windows.
- Containerization: Docker, Kubernetes.
- Networking and Communication: SIP, WebRTC, Socket Programming, IPC, MS-RTP, VoIP, TCP, UDP.
- API: REST, GraphQL.
- AI: NLP (Tokenization, Text Processing, Feature Extraction, NER), Transformer (BERT, RoBERTa).