Kaustav Ghosh

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EXPERIENCE

MICROSOFT | Software Engineer 2
Nov 2020 - Present | Tallinn, Estonia

- Main responsibility is to improve the experience in real-time video communication on various Microsoft products including MS Teams and Skype.
- Improved video freezes in 1:1 and group video calls by more than 50% by improving the packet loss calculation.
- Wrote a functional test framework to catch bugs early in the product life cycle.
- Optimized and implemented highly complex features(e.g., simulcast) involving RTP protocol and H.264 codec level changes to greatly improve the video experience.

TONBO IMAGING | Software Engineer
Jan 2018 – Oct 2020 | Vilnius, Lithuania

- Main responsibilities were to optimize and add new features in Embedded Android Platform (AOSP)/Linux for security thermal cameras and weapon scopes running Qualcomm Snapdragon 210 (MSM8909).
- Developed android apps used with defense-grade thermal cameras.
- Implemented and optimized live video streaming from weapon scopes using Android NDK and JNI.
- Implemented V2X features in an automotive multi-sensor camera system.
- Optimised CPU, GPU, RAM performance for thermal image processing.
- Implemented and optimized different types of over-the-air OS updates for different types of products.
- Wrote hardware and software functional tests for thermal cameras to validate system performance using real and simulated data.

TATA CONSULTANCY SERVICES | System Engineer
Jul 2015 – Jan 2018 | Kolkata, India

- As a full-stack developer responsibilities were to develop and maintain features of existing as well as new web applications for the client British Telecom.
- Work mainly based on Java, Javascript, HTML/CSS, and PL/SQL.
- Developed a highly functional UI template for a set of applications using Bootstrap and Primefaces.

CONFIRMTKT.COM | Application Developer, Intern
Aug 2014 – Feb 2015 | Bangalore, India

- Made the Windows Phone version of their existing Android app on predicting railway ticket status using historical data.
- Was responsible for developing as well as making an automated test suite for the application.
- Within two months, the Windows Phone app featured as one of the top apps in the travel category on the Microsoft Store.

JECLAT '15 | Website Developer
Feb 2015 | Kolkata, India

- Developed the website using JSF/Servlet for the annual cultural festival of Jalpaiguri Government Engineering College.

SKILLS

LANGUAGES
Java • C++ • Python • Bash • HTML/CSS • XML • Javascript • SQL

TECHNOLOGIES
RTC • WebRTC • RTP • H.264 • GStreamer • Embedded Android (AOSP) • V2X • Android HAL • Android SDK • Android NDK • JNI • Android app development • Embedded Linux • LK bootloader • API design • Full-stack web development • Git/ Github

SYSTEM TESTING TOOLS
adreno/snapdragon profiler • iperf • powertop • trepn

WEB TECHNOLOGIES
Servlet /JSP /JSF • Bootstrap • JQUERY • AJAX • REST • JSON • DBMS /MySQL

PROJECTS

RTC APP USING WEBRTC NATIVE API
- Built an RTC app using C++ to send and receive audio and video using WebRTC native API. The signaling plane was implemented using an HTTP server.

SURVEILLANCE CAMERA USING AOSP
- Customized Android to make a 24/7 active video surveillance camera with Beagleboard X15 running TI AM5728.
- Features include live RTSP video streaming using GStreamer, GNSS support and commands API for client applications.

EDUCATION

JALPAIGURI GOVERNMENT ENGINEERING COLLEGE
B.Tech in Information Technology, 2011 - 2015
DGPA: 8.436 / 10

CERTIFICATION

Oracle Certified Associate, Java SE 7 Programmer

ACHIEVEMENTS

- Selected as the winner of **On The Spot Award** at TCS and got appreciation from the client for the excellent work done for them.
- Was awarded the **best performer of the batch** in TCS Initial Learning Program.
- Was a competent tier **member of Microsoft (India) App Builders Club**.
- Was a **Microsoft (India) Student Partner**.