Jai Luthra

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WORK EXPERIENCE

AUGUST 2019

Amazon Development Center, Bengaluru

(Current)

Software Development Engineer

• Working in Amazon Fulfillment Technologies.

Areas: AWS Networking Services (APIG, ALB), Orchestration (SWF, Step Functions)

MAY - AUGUST 2019

VideoLAN - Google Summer of Code

Contributor (Project Page)

• Added support for NVDec, NVIDIA's hardware acceleration video decoding API. (GitLab Repo)

Mentors: Steve Lhomme, Thomas Guillem

MAY - JULY 2018

Amazon Development Center, Bengaluru

Software Development Engineer - Intern

- Worked with the ${\bf Automated}~{\bf Advertising}$ team.

• Created a Spring web app for AWS Simple Workflow Service (SWF) monitoring API.

MAY - AUGUST 2016

FFmpeg - Google Summer of Code

Maintainer (Project Page)

• Wrote an encoder for Dolby TrueHD, a lossless audio compression codec.

• Updated and merged the MLP (Meridian Lossless Packing) encoder, originally written by Ramiro Polla in 2009.

Mentor: Rostislav Pehlivanov (atomnuker)

EDUCATION

DECEMBER 2019 II

IIIT-Delhi

Bachelor of Technology - Computer Science and Engineering

APRIL 2015

Bal Bharati Public School, Pitampura, New Delhi

All-India Senior Secondary Certificate Examination (CBSE), Class XII

SKILLS

LANGUAGES: C, Python, Java, C++, Rust SOFTWARE DEV.: CUDA, OpenGL, AWS, React

HARDWARE: Embedded C, Verilog

ASSEMBLY: Arduino/AVR, x86 asm, ARM asm

PROJECTS

2019 foveated raytracer

Foveated ray tracer in C++ for eye-tracking VR headsets.

2017 ans Hacking around Asymmetric Numeral Systems (ANS) entropy coding in C
2017 kaldi-asr A wrapper around Kaldi, for easy speech recognition and alignment.

2016 armsimc & armcpu An ARM simulator in C, and a baby ARM CPU in Verilog.

2016 Mapbots Mapping rooms using a ring of ultrasonic sensors mounted on an autonomous bot

2016 Kompress Text compression tool written in C, based on Huffman Coding.

ACADEMIC INTERESTS

Multimedia Codecs Linear Algebra Computer Graphics Operating Systems Information Theory Algorithm Design Digital Signal Processing Computer Architecture Quantum Computing Virtual Reality

ACHIEVEMENTS

AUGUST 2014

Procon Junior (IIIT-Delhi)

Rank 4

• A competitive programming contest for highschool students in India.

DECEMBER 2012, 2013

Google Code-In - KDE, NetBSD

Completed 6 challenges

- KDE Bug fixes for Trojita, KStars and Amarok.
- NetBSD Documentation on how-to dual boot with NetBSD.