

Arjun Krishna

SDE @ AWS AI/ML |

Ex-Adobe | IIT Roorkee 2019

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Mobile: +1(650) 880-5337

Location: San Francisco, California (EAD approved)

Website: <https://arjunkrishnak.github.io/>

Email: arjunkrishna.office@gmail.com

LinkedIn: www.linkedin.com/in/arjun-krishna-k

GitHub: <https://github.com/ArjunKrishnak>

Summary:

Rich 5+ years of software work experience with domain expertise in machine learning, cloud infrastructure systems for machine learning, system design, algorithm design, distributed cloud computing, storage scalability. Demonstrated experience in technical leadership, establishing technical standards and best practices.

Experience:

Duration (mm/dd/yyyy)	Role	Organization	Description
03/01/2024 - Present	Software Development Engineer	Amazon Web Services Pvt. Ltd. 2795 Augustine Dr, Santa Clara, CA 95054, United States	I work on SageMaker Distributed Model Parallel library, which makes large scale deep learning training easier and performant.
12/20/2021 - 03/01/2024 (2 yr 4 months)	Software Developer 2	Amazon Web Services Pvt. Ltd. 2100 University Ave, East Palo Alto, CA 94303	Built entire control plane and data plane stack of AWS Aurora ML Zero ETL infrastructure by leading 5-person team. My primary focus in this team revolves around building the distributed Native AWS cloud service used for the and ecosystem infrastructure of AWS Aurora MySQL
08/10/2020 - 12/20/2021 (1 yr 5 months)	Software Developer 2	Amazon Web Services India Pvt. Ltd. Aquila Building, BCBP Ground, Mahadevpura, Bengaluru, Karnataka 560048	Contributed to the fault tolerance aspects of AWS Aurora MySQL which is a fully managed cloud native SQL database service. My contributions revolved around Defunct segment handling, Dead latch diagnostics, Page diagnostics, Out of memory avoidance and Fault injection features for Aurora MySQL 8.0 engine .
06/18/2019 - 08/10/2020 (1 yr 3 months)	Software Developer 1	Adobe Systems India Pvt. Ltd. I- 1 A, City Centre Sector - 25A, Noida, UP, 201301	Developed Genshop which is Adobe's in-house deep learning python library for Generative models primarily GANs. Contributed to CPU (multithreaded) and GPU workflows of Adobe Color Engine (ACE), Modular Parsing System (MPS) and Adobe font technology which are core libraries shared across all Adobe products.
05/07/2018 - 07/26/2018 (3 months)	Research Intern	Adobe Systems India Pvt. Ltd. I- 1 A, City Centre Sector - 25A, Noida, UP, 201301	Interned with Big Data Experience Lab, Adobe Research, Bengaluru on the project personalized highlighting based on reader feedback.
12/01/2017 - 01/31/2018 (2 months)	Research Assistant	Indian Institute of Technology, Roorkee	Researched on action recognition with feature fusion which involved combining traditional

		Roorkee, UP, 247667	computer vision techniques with deep learning to improve the accuracy of action recognition.
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Education:

Duration (mm/dd/yyyy)	Degree	Institution	Percentage
06/01/2015 - 06/01/2019 (4 years)	B. Tech. Major in Electronics and Communication Engineering with Minors in Computer Science Engineering	Indian Institute of Technology, Roorkee Roorkee - Haridwar Highway, Roorkee, UP, 247667	93.86%
07/01/2013 – 05/25/2015 (2 years)	Senior high school (11th and 12th Grade) Physics, Chemistry, Mathematics Biology, English	Bharatiya Vidya Bhavan Bhavans Hill Villikal Kottakunnumal Road Chevayur, Kozhikode, Kerala 673017	97%
07/01/2012 - 05/26/2013 (1 year)	High school (10th Grade) English, Hindi, Mathematics, Science, Social Science	Bharatiya Vidya Bhavan Bhavans Hill Villikal Kottakunnumal Road Chevayur, Kozhikode, Kerala 673017	100%

Certifications:

Title	Institution	Platform	Percentage
Machine Learning	Stanford	Coursera	97.6%
Applied AI with Deep Learning	IBM	Coursera	99.2%
Fundamentals of Scalable Data Science	IBM	Coursera	97.7%
Advanced Machine Learning and Signal Processing	IBM	Coursera	97.7%

Skills:

- *Backend Programming:* Java, C++, Python, C, Objective C
- *Frontend Programming:* JavaScript, TypeScript, Ruby
- *Databases:* MySQL, Postgres, DynamoDB, Mongo DB, Apache RDD, Indexed DB
- *Frameworks:* Pytorch, TensorFlow, SparkML, React.js, Node.js, Flask, Android SDK, DirectX12, Metal, Microsoft SDK, Emscripten, AWS SDK
- *Developer tools:* Git, Perforce, Visual Studio, Android Studio, XCode, PyCharm, IntelliJ
- *Consoles:* Linux, AWS, Windows, Mac

Personal Projects:

Title	Description	Technology stack
Express Flowchart	An android app (with 100+ downloads) that helps users quickly create flowcharts UMLs and mind maps.	Java, Android SDK
Express Wiki	A website that gives you a personal online Wikipedia powered by AI so you can read and organize your Wikipedia.	React, MongoDB, NodeJS, JavaScript, AWS, Python
Intelligent Font Search	A tool which applies combination of NLP and Deep Learning to facilitate natural language complex query for font search.	Python, Pytorch, React, Flask, AWS
Video segment copy detection	In this B. Tech. thesis work of mine, I have tried to introduce a video hashing method for scalable video segment copy detection to prevent proliferation of toxic and illegal copies of videos online.	Python, Pytorch, Flask

For more of my work and open-source contributions please head over to my [website](#)

Achievements:

- Won Aurora hackathon 2021 for developing novel prefetch algorithm for data read ahead for [Aurora MySQL 8.0 engine](#).
- Won prestigious kudos award 2020 for my contributions at CoreTech Adobe among team of 100+ builders.
- Winner Adobe shark tank event for best product idea pitch amongst 100+ new hires.
- Best B.Tech. Project Award received from director IIT Roorkee amongst 1816 students.
- KVPY National Scholarship 2015 Fellow ~1,50,000 high school candidates.
- District topper of AISSCE (All India Senior School Certificate Examination) 2015 certificate received from education minister India.

Domain Knowledge:

Machine learning, Big data analysis, System design, AWS cloud development, Cloud deployment infrastructure, Test automation infrastructure, Storage scalability, Web development, Computer vision, Natural language processing, Android development, Image processing, Color management, Kubernetes, Docker

References:

Arkaprava De Sr. Engineering Manager Amazon Web Services Pvt. Ltd. LinkedIn: arkaprava-de-29386046 Email: arkaprav@amazon.com	Saikat Chakrabarthi Engineering Manager 3 Adobe Systems India Pvt. Limited LinkedIn: sktchakrabarty Email: chakraba@adobe.com	Vinod Pankajakshan Associate Professor Electronics Department, IIT Roorkee LinkedIn: vinod-pankajakshan-8537155 Email: vinodfec@iitr.ac.in
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