Aishwarya Dev

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EDUCATION

MS, Computer Science, University of California Los Angeles (UCLA), GPA: 3.6/4

Sep 2021 — Sep 2023

BE, Electronics and Communication Engineering, Medi-Caps University, GPA: 8.3/10

Aug 2013 — May 2017

TECHNICAL SKILLS

- Programming Languages: Python, Javascript, Typescript, C#, C++, Shell scripting
- Machine Learning and Generative AI: Transformers, GPT, Gemini, LangChain, UNET, CNN, RNN, GAN, VAE, Diffusion, PyTorch, Tensorflow, XGBoost, Pandas, NumPy, Matplotlib, HuggingFace, Scikit-learn
- Frontend and Backend Frameworks: React, Angular, Figma, HTML5, CSS3, SCSS, NodeJs, Express, ASP.NET Core, EF Core
- · Data Management: SQL Server, MySQL, PostgreSQL, MongoDB, Redis, Neo4j, Apache Spark
- Cloud DevOps: CI/CD, Docker, Kubernetes, Azure, AWS, Git and Linux
- **Graduate courses:** Neural Networks and Deep Learning, NLP, NLG, Computer Vision, Cognitive Artificial Intelligence, Computational Genomics, ML in Neuroscience, Cryptography and Blockchain
- Blockchain and Web 3.0: DeFi, DEX, Ethereum 2.0, Algorand, Solidity, PyTeal

WORK EXPERIENCE

Machine Learning Researcher, UCLA Brain Research and Artificial Intelligence Nexus

Sep 2023 — Present

- Developing solutions for deep learning based morphological segmentation and brain dynamics analysis of dense biological neural networks while ensuring high recall, minimal pre-processing and high scalability across large brain images using SOTA computer vision, graph theory, and generative algorithms.
- · Software Engineer Intern, Illumina Inc.

June 2022 — Sept 2022

- Developed a **graphics benchmarking and profiling tool** for Illumina's DNA sequencers and instrument software and collaborated on genomic data analysis using deep learning.
- Full Stack Developer TCS and Microsoft Cloud, Tata Consultancy Services

Aug 2019 — Sep 2021

Developed a microservices based governance framework for TCS and Microsoft Cloud. Contributed actively across the entire tech stack including **software architecture**, **front-end**, **back-end and APIs**, **database design**, **DevOps and CI/CD development**. Responsible for mentoring new team members, performing code reviews, and presenting to stakeholders.

- Orchestrated framework upgrade, code quality control and standardization and other proactive optimization measures for **35**% minimized bug incidence, **70**% reduced code smells and **30**% overall performance improvement.
- Performed proactive query optimization, DB caching, and Denormalization on the database side to improve the site's **end to end response time by 50**%.
- Expedited software delivery of bug-free and compliant code by 1 week and improved deployment frequency through efficient code reviews and CI/CD optimization.
- Systems Engineer, Tata Consultancy Services

Jan 2018 - Jul 2019

Oversaw the backend infrastructure and application management for a prominent European bank.

- Diagnosed and fixed issues on load balancing servers resulting in 30% latency reduction and Network throughput optimization.
- Introduced automation scripts for 25% time saving on patch management and manual post-deployment verification.
- Wrote general purpose scripts for 50% quicker resolution of general ledger issues.
- Drove workload distribution across teams by training and assisting new team members.

LEADERSHIP / VOLUNTEER EXPERIENCE / AFILIATIONS

- Panelist and speaker at Google's Leaders in AI panel at DevFest LA 2023.
- Panelist and speaker at Google LA's Kode with Klossy Summer 2023 coding camp.
- · Moderator at Google for Startups Women Founders, Masterminds AI 2023 and mentor at GDSC Concordia.
- Hackathon judge at Sachacks 2022, and Sachacks 2023.
- Google Women Techmakers Ambassador and GDG North America member.
- UCLA Data Management Systems, and Software Construction Teaching Assistant.
- UX developer volunteer at Monday.com for SD2 non-profit.

SOLO PROJECTS

My solo projects include - Multimodal Natural Language Generation, Time Series Analysis, Applied ML in Genomics and Neuroscience, and Blockchain and DeFi and are available on my github/upon request.