Aman Batra

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Education

Northeastern University, Boston, MA — Jan 2021 - Sep 2022
Master of Science in Computer Science - GPA 4.0

Gujarat Technological University, Ahmedabad, India — Jul 2011 - May 2015
Bachelor of Engineering in *Electronics and Communication Engineering* - GPA 3.6

Technical Skills

Languages: Python, Java, Javascript, C
Databases: Postgres, MySQL, DynamoDB, AWS RDS, MongoDB
Frameworks and Libraries : React.js, Node.js, Apache Arrow, Flask, Spring Boot, AWS CLI, RESTful APIs
Tools and Technologies: AWS Cloud, Google Cloud, Docker, Maven, Bash, Linux, CI-CD-CT
Certifications: AWS Certified Solutions Architect Associate SAA-C02

Relevant Experience

Software Development Engineer | *Amazon Web Services, Seattle, WA* — Sep 2022 - Present
- Developing highly scalable software for the AWS AI organization as part of the Transcribe team, which specializes in deep learning for automatic speech recognition (ASR) and natural language processing (NLP).
- Engaging with the AWS AI Research Labs, and building model training tools to meet their tooling requirements.
- Managing massive product pipelines, resolving build issues, with a focus on hyper-parameter tuning for the models to support language expansion within Amazon Transcribe and its downstream cloud services.

Software Engineer Co-op | *Red Hat Inc, Boston, MA* — Jan 2022 - June 2022
- Collaborated with Red Hat's US Research division on Elastic Secure Infrastructure, an OpenStack Ironic component, and contributed to an open-source bare metal machine sharing framework for owner-lessee use cases.
- Conducted ESI framework vulnerability research, developed mitigation measures, and created a roadmap to implement Inferential Machine Learning for server utilization tracking while ensuring tenant privacy.

Graduate Teaching Assistant | *Northeastern University, Boston MA [Part-time]* — Jan 2021 - Sep 2022
- *Cloud Computing* - Worked with Mass Open Cloud team to deploy and manage projects on Red Hat OpenStack and OpenShift platforms, assisting students in building **highly scalable, fault tolerant** cloud solutions.
- Conducted comprehensive training sessions for 120+ students on relational database design, building mini data warehouses, and assisted them in debugging programs using data structures and algorithms in C.

Software Engineer & Co-Founder | *Predictbay Tech LLP, Surat, India* — Jan 2018 - Oct 2020
- Built an eCommerce platform for textile sales, using SpringBoot, MySQL and AWS Services.
- Managed Auto Scaling Groups, container repositories, and CloudFormation templates, while configuring DNS routes using Route 53. Implemented anti-DDoS measures such as CloudFlare SSL encryption.
- Created pipelines to move MySQL data to S3 data lake and migrated textile sales archives to S3 and S3-IA.

Academic Projects

Augment Alexa Skill | *Mitre Corp — Khoury College of Computer Sciences* — July 2021 - Aug 2021
- Used Alexa Presentation Language, Node.js, and AWS Lambda to create Alexa skills to enable the use of **multi-turn conversations** for automating tasks such as raising a helpdesk ticket in Mitre's mobile application.

Office Hours Management Portal | *Northeastern University* — Jan 2021 - May 2021
- Developed an event booking system, a live waiting timer, instructor schedules, a note-taker app, and an automated report generation tool for each meeting. Used Spring Boot, Thymeleaf, and MongoDB.

D4N S3 Select Caching | *Red Hat — Khoury College of Computer Sciences* — Feb 2021 - Apr 2021
- Added support for Amazon **S3 Select** to a caching layer in Red Hat's RADOS Storage Gateway using **C++ and python** as our primary tools; Created the cloud testing environment using RedHat **OpenShift and Docker**.

Contact Tracing DB | *Northeastern University* — July 2020 - Aug 2020
- Developed a contact tracing system with MongoDB, R and Flask. Utilized **multi-level depth queries** to track the chain of visits, interactions and exposure events to identify the people who came in vicinity of an infected person.