Akshay Verma

CONTACT

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Citizenship: American

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Location: New York City,NY — Jersey City,NJ

SUMMARY

Dynamic, accomplished and results-oriented professional with a proven ability to lead critical technical initiatives, deep dive and optimize complex systems. Experience spans financial services and e-commerce, with particular expertise in Python, AWS, and data pipeline optimization. Track record of reducing operational costs and streamlining processes, while improving system performance and reliability. Able to align multiple teams across multiple time zones to finish project on time and within budget. Passionate about solving complex issues by developing elegant, efficient solutions.

TECHNICAL SKILLS

Programming Languages: Python (proficient) | JavaScript/TypeScript | Ruby(on the Ruby on Rails Framework)

AWS Tools: Lambda | CDK | Cloudwatch | S3 | SNS/SQS | DynamoDB

Libraries/Tools: Pandas | Dask | Jupyter Notebook | Numpy | matplotlib | BeautifulSoup

Databases: AWS Glue with Athena | DynamoDB | Redshift | Presto | MySQL

Web Development: HTML | CSS | JQuery

Back-end: Rails | Flask | Node.js

Version Control Software: Git | GitHub

Testing Tools: Pytest | RSpec

EXPERIENCE

Software Developer III　　　　　**JPMorgan Chase**　　　　　January 2023-Present

- Led critical performance optimization project for data processing pipeline:
  - Reduced runtime from 9 hours to 2 hours through improved parallel processing and elimination of redundant computations
  - Engineered elegant solution for complex trading problem, generating $1M+ annual cost savings
  - Implemented memory optimization patterns enabling execution in resource-constrained environments
- Revitalized and unblocked key legacy migration project after previous implementation attempts stalled out:
  - Developed automation tools and infrastructure to reduce manual/redundant work some of which was reutilized by coworkers across different projects
  - Coordinated with multiple teams across multiple time zones to get project over the finish line. Project went from being unable to generate metrics to publishing and matching metrics within thresholds
- Architected and implemented data tracing solutions:
  - Reduced derivative products support resolution time from 2 hours to under 10 minutes through improved traceability
  - Developed comprehensive documentation enabling systematic bug identification and resolution
  - Created a framework for systemic fixes, significantly reducing recurring issues
- Drove technical excellence initiatives:
  - Reduced 5-13 hour batch jobs to minutes through algorithmic optimization
  - Implemented best practices including MyPy typing, improved unit testing and maintainability

System Developer II　　　　　**Amazon**　　　　　August 2019-December 2022

- Created real time alerts for warehouse safety, quality and productivity using Python and internal build tools
  - Worked with multiple teams to combine their diverse data sources - including API's, Data Stores, and SQS queues produce all the relevant information into a singularly digestible format
  - Drove down safety incidents by 70% across 150 warehouses while reducing redundant work
- Worked on migrating software stack from EC2 instances to better utilize AWS serverless options
  - Utilized best practices including use of Cloud Development Kit (CDK), Cloudwatch, and Dead Letter Queues (DLQ)
  - Created a system that is robust, resilient and fast without degrading customer experience
- Developed multiple Ruby on Rails based web dashboards including proxemics dashboard to help warehouses ensure that social distancing was effectively maintained during the covid peak and a health screening dashboard (www.cnbc...) to screen warehouse employees who display covid symptoms
  - Implemented a complex permission scheme to restrict visibility of the dashboard based on region and employee permissions

Previous Positions March 2016-August 2019

- **Program Developer, Amazon**: Created Python and SQL-based automation tools for warehouse optimization; mentored analysts in technical skills some of whom grew to become software developers at Amazon

- **Codecademy Advisor**: Provided technical coaching in web development and programming languages to online learners

CERTIFICATION

AWS Certified Cloud Practitioner

EDUCATION

Masters *(Graduating Spring 2025)*	**New York University**	Urban Science and Applied Informatics
Bachelor of Arts *(2011-2015)*	**Binghamton University**	Mathematics with a Minor in Computer Science

INTERESTS

Running (12+ marathons), International Travel (lived in USA, India, Japan, Luxembourg, China)