

ANANYA ASTHANA

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Availability: May 2025 onwards

PROFESSIONAL SUMMARY

Focused and fast-learning Software Engineer with 3.5 years of work experience in the IT industry, on Backend Development, Web Development, DevOps, Cloud - security and automation, seeking high-impact, high-value, innovative opportunities.

ACADEMIC QUALIFICATION

Northeastern University, Boston, MA
Khoury College of Computer Sciences
Master of Science in Computer Science

September 2023 – Present
Expected Graduation: May 2025
GPA: 3.83/4.0

SRM Institute of Science and Technology, Chennai, India
Bachelor of Technology, Computer Science and Engineering

August 2016 – May 2020
CGPA: 8.51/ 10

TECHNICAL SKILLS

Languages: Python, Java, PowerShell, PHP, C, C++, C#

Database Management Systems: MySQL, MongoDB, PostgreSQL

Web Technologies: HTML, JavaScript, TypeScript, React.js, CSS, Bootstrap

Frameworks/ Libraries: Node.js, FastAPI, FlaskAPI, Swing, Zend, OpenCV, Pandas, Numpy, Ollama, WordPress

Developer Tools: Git, Docker, Terraform, PowerBI, Prisma, Dynatrace, GitLab, ServiceNow, Jenkins, Kubernetes, Latex

Cloud Computing: AWS, Azure, GCP, Boto3 SDK, AWS CDK, CIS NIST CSA-CCM frameworks

Certifications: AWS Certified Security - Specialty, AWS Certified Cloud Practitioner, Microsoft Azure Fundamentals, AWS Cloud Agnostic Audit Certification, Palo Alto Networks System Engineer: Prisma Cloud Associate

WORK EXPERIENCE

Amazon Robotics

Software Development Engineer Co-Op

July 2024 – December 2024

North Reading, MA, USA

- Developed the Amazon Robotics Resource Management (ARRM) Historical Insights Toolkit, a reusable framework for automating the generation of metrics from drive unit and fulfillment center historical data, minimizing previous manual effort and loss of scripts.
- Programatically automated the creation of cloud architecture, consisting of Python **Lambda** for query execution, **Athena** for data extraction, **S3** for storage, **IAM** roles and policies for least privilege, **CloudWatch** for dashboarding, **EventBridge** for periodic process execution, using the **TypeScript**-based **AWS Cloud Development Kit (CDK)**. Documented an extensive user guide manual.

KPMG India

Software Development Consultant

January 2020 – July 2023

Bengaluru, India

- Led the development of a **Python**-based Cloud Security Posture Management tool using **Flask**, **PowerShell**, **cloud SDKs (AWS, Azure, GCP)**, with database management using **MySQL**, deployed for multiple Fortune 500 clients.
- Developed 13 Azure Cloud Audit bots for KPMG's Intelligent Automation Platform, used globally by member firms.
- Spearheaded the automation of cloud processes with Terraform, Python, PowerShell, and **Bash**, resolving IAM, IaC, Cost optimization, Lambda, and GitLab tickets; containerized the solution using **Docker** and Azure containers.
- Built a scalable **PHP**-based Third-Party Risk Management solution using **PHP Zend Framework**, **MySQL**, and web development technologies including **React.js**. Used **PowerBI**, **D3.js** and **charts.js** for data visualization.

PROJECTS

HireU: AI-Powered Hiring and Grant Eligibility Assistant | [Devpost Project Link](#)

February 2025

'Best use of GenAI' award at CivicHack '25. Built a **React.js** Frontend, **Python FastAPI** Backend, **MongoDB** Database and **Ollama LLM** server for context-based matching of small businesses with suitable candidates and eligible Federal and State grant funds.

Image Manipulation and Enhancement Software using Java | [Github Project Link](#)

November 2023

Performs image manipulation functions including compress, blur, sharpen, levels adjustment etc., and produces histograms, displayed on an interactive **Java Swing GUI**. Implemented the Command Design Pattern and MVC architecture for code efficiency.

EduNavigate: Learning Management System | [Project Deployment Link](#)

May 2020

Robust single-page application for the management of courses, modules, grades, assignments and quizzes, using **React.js**. Engineered a RESTful backend using **Node.js**, **Express.js**, with state management using **Redux** and database management using **MongoDB**.

PAPER PUBLICATIONS

- K. Sivasankari, Mahima Ladha, Ananya Asthana. (2020). [An Enhanced Framework for Visual Attention on Human Face using Artificial Intelligence](#). *International Journal of Advanced Science and Technology*, Volume 29, No. 05
- Dr. Balika J.Chelliah, Ananya Asthana, Mahima Ladha, Aayush Parashar. (2018). [Automated Energy Saving System using IoT with PIR Sensors](#). *Journal of Emerging Technologies and Innovative Research*, Volume 05, Issue 10
- Presented a paper titled 'Diabetes Risk Analysis Using Data Mining and Machine Learning' at the 9th International Conference on Science and Innovative Engineering, Jawahar College, Chennai (2019).