Ishani Kathuria

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EDUCATION

Bachelor of Technology in Artificial Intelligence, CGPA: 9.09/10
Amity University Uttar Pradesh, India | July 2019 – July 2023
- Recipient of Dr. Ashok K. Chauhan's 100% scholarship
- Chair of IEEE Student Branch
- Member of Management team at Amity Artificial Intelligence Club (AAIC)
- President of Strokes (The Fine Arts club of ASET)
- Gold medal winner of Kho-Kho at the intra- university Sangathan 2019

RELEVANT COURSES AND CERTIFICATIONS

Programming in Python, Artificial Intelligence, Fundamentals of Machine Learning, Introduction to Deep Learning, Big Data Analytics, Natural Language Processing with Deep Learning, Deep Learning and Artificial Intelligence, Applied Probability and Statistics

Certifications: AWS Certified Cloud Practitioner

PROFESSIONAL EXPERIENCE

Amazon Web Services
System Development Engineer | July 2023- Present
- **Led automation of region build processes** for 15+ services across AWS OpenSearch, reducing manual intervention and cutting deployment time from over a month to less than a week using Python scripting and automation tools.
- **Developed internal tools** to simulate customer interactions, proactively identifying issues in microservices and features, enabling bug detection and resolution prior to external customer impact.
- **Optimized resource usage** by refactoring scripts, resulting in a 50% reduction in CPU and memory consumption across OpenSearch domains, enhancing overall system performance and customer experience.
- Utilized programming languages including **Python, Golang, and TypeScript** alongside **AWS services** like Lambda, ECS, Step Functions, CloudFormation, and CloudWatch to streamline deployments and ensure system reliability.
- Collaborated with cross-functional teams to ensure comprehensive testing of new features and changes, improving service quality and reducing downtime during region expansions.

Planet E-Com Solution Pvt. Ltd. (Microsoft Partner)
Data and Algorithm Lead | May 2022 - Jul 2022
- The team worked on an overseas education consultation software to help students easily apply to their dream universities.
- I worked directly under Mr. Ashish Adhikari, Principal Product Manager at Microsoft.
- I supervised 10 interns to collect data through web scraping and writing algorithms in python for the project.

Docplus Online
Python Project Manager | Jul 2021 - Nov 2021
- Managing 40+ developers and assigning weekly python scripting, data extraction, and data science tasks.
- Performing data analysis and data cleaning.
- Created multiple python scripts for tasks such as automatic translation, gender identification, and file conversions amongst others.

IoTIoT.in
Artificial Intelligence Project Intern | Jan 2021 - Aug 2021
- Planning the project on hand gesture recognition with depth estimation on GitLab using issues and milestones
- Researched existing methods for gesture recognition and improved upon them to meet our project goals.
- Created a 3D-CNN model trained on the Jester dataset and can detect and recognize hand gestures with an accuracy of more than 90%.
- Used a depth recognition model based on Open3D to be able to give accurate depth estimation of the hand gestures.

PUBLICATIONS

Exploring the Potential of Conversational AI for Supporting Children with Autism
INBUSH ERA 2023, Springer | Pending publication

Real-Time Temperature Based Food Recommendation using Artificial Intelligence
ICCCNT 2023, IEEE | July 2023

Applications of Deep Learning in Healthcare: A Systematic Analysis
Indo-Hungarian Conference (ICRIC-2022), Springer | May 2023

Predicting daily PM2.5 using Classic Azure ML Studio
COM-IT-CON 2022, IEEE | May 2022

SKILLS

- **Programming Languages**: Python, Golang, TypeScript, Java
- **AI/ML Frameworks**: TensorFlow, PyTorch, Keras, Scikit-learn
- **Cloud Services**: AWS Bedrock, Lambda, ECS, Step Functions, CloudFormation, CloudWatch
- **Data Analytics**: Pandas, Numpy, Tableau, Matplotlib, Plotly
- **Web Development**: Django, Flask, HTML, CSS, Bootstrap, Typescript

PROJECTS

Autbot – Educational Chatbot | Aug 2022
Developed an educational chatbot by leveraging conversational AI to help educate children with autism. The model is based on **speech and text based emotional recognition** to converse with children and give responses based on how they are feeling. Our proposed model achieved over **90% accuracy** in speech based and **73% accuracy** in text based emotional recognition.

SelfMed - Medical AI Chatbot | Aug 2022
Developed an NLP-based chatbot to diagnose diseases and suggest Indian home remedies, achieving **85% accuracy** in mapping symptoms to conditions.

Offline Signature Verification | Jul 2021
Built a Siamese CNN model achieving over **90% accuracy** in verifying signatures from a benchmark public dataset.

Depth Gesture Recognition | Aug 2021
A computer vision project consisting of a **3D Convolutional Neural Network** to detect and identify different dynamic gestures as well as give a depth estimation of the hand using Open3D.

Python Games | Nov 2020
Some popular offline games with an online twist with python. The games are made in 2 formats, the normal command line text-based format, and a graphical user interface format made with the help of **PyQt5**.

VOLUNTEERING

Amazon Global Volunteers
Volunteer | Sep 2023 - Current
- Participate in various community outreach events organized by Amazon Global Volunteers throughout the year.
- Assist in event logistics and on-site support, helping to ensure smooth execution of volunteer activities.
- Engage with team members and local communities to support charitable initiatives and causes.

IEEE Student Branch
Chair | May 2022 - Jan 2023
- Responsible for the overall management of the student branch affairs.
- Organizing technical, non-technical, and administrative events.
- Hold regular meetings of the Branch Executive Committee.
- Communicate frequently with other University IEEE Student Branches.

Amity Technical Placement Centre
Student Coordinator | May 2022 - Jul 2023
- Managing placement drives for students of the 2023 batch.
- Overseeing events organized by the Amity Technical Placement Centre (ATPC).

New Delhi Nature Society
Volunteer | Jan 2022 – Apr 2022
- Creation and editing of social media content on Instagram for increasing awareness about environmental problems in India.
- Organizing and volunteering at nature walks organized in February-March 2022 to increase the conversation about important ecological structures.
- Creation of database and design for "Birds of Delhi card game".
- Promotion of nature walks and other NGO content on personal social media.

United Nations Volunteers
COVID Relief Ambassador | May 2021 – Jul 2021
- Learning and sharing correct information about COVID-19 to bust myths.
- Creating support systems and safe spaces in my locality to help people.

EXTRACURRICULAR ACTIVITIES

- Founded "Get It Done," a startup dedicated to empowering students by offering hands-on AI project experience and career guidance. We helped students build strong portfolios, leverage their personal brand, and seize the right career opportunities through personalized one-on-one sessions, ensuring they present their best professional selves to the world.
- Led "Strokes," my college's fine arts society, overseeing the organization of art-related events and representing the society in both inter- and intra-university competitions.