

AYUSH JAIN

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EDUCATION

New York University - Courant Institute of Mathematical Sciences, New York, NY **Sep 2021 - May 2023**
Masters of Science in Computer Science, GPA: 3.5/4.0
Coursework: Fundamental Algorithms, Database Systems, Machine Learning, Computer Vision

RV College of Engineering, Bangalore, IN **Aug 2015 - May 2019**
Bachelor of Engineering in Electronics and Telecommunication with a minor in Computer Science
Coursework: Intro to Programming, Data Structures, Operating Systems, Image Processing

SKILLS

Programming/Scripting Languages: C++/C [Intermediate], Python [Intermediate], HTML/CSS [Intermediate], SQL [Intermediate], JavaScript [Beginner], JAVA [Beginner], Spark [Beginner]

Databases: Relational-DBMS (MySQL), NoSQL (MongoDB)

Tools/Platform: Jenkins, Docker, Kubernetes, Google Cloud Platform/Storage, Linux/Unix, Git, Vim, VS Code, Agile

Libraries and Framework: BigQuery, PySpark, Hive, scikit-learn, PyTorch, TensorFlow, OpenCV, Numpy, Pandas

EXPERIENCE

Software Engineer Intern - Walmart Global Tech, Bentonville, US **May 2022 - Aug 2022**

- Designed an architecture to implement California Privacy Rights Act by analysing the existing dataflow diagrams to empower 120M Walmart users by improving user data transparency using **PySpark** on **Hive** & GCS databases
- Improved Spark jobs run-time by 30% by clustering on **Google Cloud Storage** databases using **BigQuery**

Software Development Engineer - Amadeus Software Labs, Bangalore, IN **Jul 2019 - May 2021**

- Developed **backend** infrastructure in **C++** for Air Canada enabling redemption of points for 10M+ travellers
- Spearheaded complex development and deployment of CPP11 to CPP14 migration of Ticketing backend in **Agile**
- Delivered 20+ bespoke developments by updating Baggage, cabin, security and regulatory policies for 5+ airlines
- Handled **CI/CD** pipeline and critical maintenance tasks, patching 100+ incident records for 20+ airlines
- Awarded with **High flyer award** in Q4 of 2019 for showcasing best delivery, innovation, and ownership in team

Software Development Intern - Amadeus Software Labs, Bangalore, IN **Jan 2019 - May 2019**

- Implemented a full-stack **C++ backend** app to form a consolidated document for flight, hotel, and car booking
- Reduced backend transactions by **~40%** for smoother traveler experience by merging all itineraries in one doc

PROJECTS

Maintaining Accuracy of GNN with Increasing Depth - GNN | Python | PyTorch - [Git Repo](#)

- Implemented mitigation strategies to control accuracy drop in **Graphical Neural Nets** on Cora and PubMed data

Text to Image Synthesis using DCGAN - Deep Learning | Python | PyTorch - [Git Repo](#)

- Synthesised photo-realistic images from the textual data using Deep Convolutional **Generative Adversarial Net**

Cheapest Airfare Booking Date Predictor - Python | Regression | Jupyter

- Created cheapest fare booking date predictor on **8.82M itineraries** with ~88% accuracy using **Random Forest**

Detection of weapons in public places - Deep Learning | Tensorflow | OpenCV

- Trained model on a custom dataset created by labelling 1200+ images of 5 different guns
- Achieved ~81% mean accuracy by implementing **Faster RCNN Inception** to early detect and stop terrorist attacks

RESEARCH AND PUBLICATIONS

G Chandan, **Ayush Jain**, "Real-Time Object Detection and Tracking Using Deep Learning and OpenCV," ICIRCA

- Achieved ~94% mean accuracy using **SSD** and **MobileNets** algorithm trained on COCO dataset to detect 21 unique objects and conferred with **2nd position** in State Level Project Competition among 100+ teams