

# Gaganjot Kaur Shan

📍 Antibes, France   ✉ gagan.shan7@gmail.com   ☎ +33766356099   🌐 in/gaganjotshan   🏠 gaganjotshan.github.io/Portfolio/

## DATA SCIENCE ENGINEERING

**Results-driven Data Scientist** with 1.5 years experience in **machine learning**, **predictive modelling**, and **data security**. Proficient in **Python**, **SQL**, and **ML frameworks** for **data analysis**, **visualization**, and **system optimization**. Skilled in **software engineering** and delivering **actionable insights**.

## EXPERIENCE

### Data Science and Security Research Intern

SAP Labs

March 2023 – August 2023, FR, Mougins

- Developed a SAP Fiori (UI5) app integrating ledger technologies and REST-APIs, enhancing UX for security in next-gen analytics.
- Enhanced scalability by containerizing the project with Docker and deploying on Kubernetes (Kyma) clusters.
- Improved robustness through debugging existing modules and collaboratively implementing advanced security features.
- Utilizing ML-based synthetic data generation techniques to preserve privacy, increased KPI anomaly detection accuracy upto 5.42%.

### Software Engineer Intern

Diesel Loco Modernisation Works, Indian Railways

June 2018 – August 2018, IN, Patiala

- Build a custom application-layer class with Python sockets for optimizing network communication.
- Achieved up to a 3% improvement in system responsiveness by optimizing data transmission latency.
- Partnered cross-functionally to diagnose and rectify software development challenges efficiently.

### Data Science and Mathematics Intern, Young Talent Nurture

Indian Institute of Space Science and Technology

May 2017 – June 2017, IN, Thiruvananthapuram

- Engineered a predictive model using machine learning and statistical analysis, boosting equipment failure forecasting by 2–5%.
- Visualized and analyzed over 50,000 data points in datasets, identifying trends and patterns with SQL and Tableau.
- Engaged in advanced mathematics lectures to cultivate pathological questioning and problem-solving skills.

## PROJECTS

### Oscillatory Neural Network for Voice Spoofing Detection

EURECOM • [www.canva.com/design/DAFaooWuuk/DEoVidx7jjQZxpb7F5xkjg/view](https://www.canva.com/design/DAFaooWuuk/DEoVidx7jjQZxpb7F5xkjg/view) • September 2022 – February 2023

- Assessed the efficacy of the model in mitigating the EVGP through benchmark assessments.
- Innovated and optimized the coRNN architecture for synthetic speech detection on ASV spoof 2019 logical attacks database.
- Significantly boosted model performance by 1.9 percentage points, resulting in a best equal error rate of 6.8%.

### Event Causality Detection using NLP

EURECOM • [gitlab.eurecom.fr/shan/event\\_detection](https://gitlab.eurecom.fr/shan/event_detection) • January 2022 – June 2022

- Designed and developed a data-oriented neural network model for event detection, achieving 85% accuracy on "SemEval-2010 Task 8".
- Processed over 10,000 event-related data points using data mining techniques to extract relevant features and patterns.
- Integrated word embeddings and visualization techniques to enhance model performance and identify key relationships.

## EDUCATION

### Masters of Science in Data Science and Engineering

EURECOM • Biot, France • 2021–2023 • 3.62/4

### Bachelors of Engineering Computer Science and Engineering

Chandigarh University • Mohali, India • 2016–2020 • 7.95/10

## CERTIFICATIONS

### PwC Switzerland – Power BI

Forage • 2024

### BCG Data Science Job Simulation

Forage • 2024

## SKILLS

Programming: Python, SQL, JavaScript, R, C++, Java

ML/AI: TensorFlow, PyTorch, Keras, NLP (Word2Vec, NLTK, spaCy), Scikit-learn, MLOps, LLMs, XGBoost

Data: Pandas, NumPy, Tableau, Power BI, Matplotlib, Seaborn, Excel, SAS

Web: HTML5, CSS3, Angular, ReactJS, Node.js

Cloud/DevOps: AWS (EC2, S3), GCP, Docker, Kubernetes (Kyma), Git, CI/CD, Jenkins, Postman

Languages: English (C1), French (A1), Hindi (C2), Punjabi (C2)