

# Raghav Sethi

As a skilled software development engineer, I excel in creating efficient, reliable, and scalable applications. With experience in Agile work environments and strong collaboration skills, I have worked effectively with cross-functional teams to deliver top-notch software products.

## EXPERIENCE

### [GoBOLT](#), Gurugram— *SDE 2 Backend*

OCT 2022 - PRESENT — SDE 2 Backend

OCT 2021 - OCT 2022 — SDE 1 Backend

#### TMS : Third-Party Logistics Management Application

- ❖ Collaborated on developing and maintaining 3PL logistics monitoring for the application.
- ❖ Designed and developed new microservices to meet specific requirements, while also enhancing the suite of 30 existing **microservices**.
- ❖ Employed **gRPC** with **Protocol Buffers** to ensure efficient and scalable communication between microservices.
- ❖ Utilized **Azure Durable Functions** for seamless serverless workflow orchestration.
- ❖ Exposed **REST APIs** with **Google Cloud Endpoints** and **Extensible Service Proxy**, resulting in exceptional performance.

#### Prima : Vehicle Routing Planning Application

- ❖ Collaborated to build a new application from scratch to cater to the unique use cases of Godrej & Boyce and Kohler.
- ❖ Implemented solutions for **vehicle routing planning (VRP)**, **bin-packing**, and optimization utilizing **CP-SAT**, **MIP**, and **Google Optimization AI solver**, with customized business constraints.
- ❖ Leveraged **PubSub** and **Kubernetes-based Event Driven Autoscaling** on **GKE** to make the application scalable and asynchronous.
- ❖ Capable of generating solutions surpassing manual optimization in considerably less time, **optimizing 2.5K shipments in under 10 minutes**
- ❖ Optimized model parameters and constraints, enhancing solutions while reducing **solver runtime by 8X**.
- ❖ Resulted in significant cost savings and operational efficiencies for the client.

### [IoTIoT.in](#), Pune— *intern*

FEB 2021 - JUL 2021

#### **Project:** 3D Depth Vision

Generated accurate 3D point clouds for capturing cartons from pallets with exceptional accuracy. Made carton measurements efficient and reliable, making it an essential tool for a wide range of industries and applications.

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## SKILL

Python, gRPC, PostgreSQL, GCP, Git, Docker, Kubernetes, KEDA, Azure Durable Functions, Redis, Firestore, PubSub, OR-Tools, Redash, C++, Tensorflow, Pytorch, Keras, OpenCV, Matplotlib, Pandas, Numpy, Tableau, Imutils, Dlib, MTCNN, Scikit-learn

## CERTIFICATES

[Deep Learning Specialization by deeplearning.ai](#)

[Machine Learning by Andrew Ng | Stanford University](#)

**Machine Learning and AI Workshop | IIT Roorkee**

## LINKS

**Github:** [/05rs](#)

**Linkedin:** [/sethi-raghav](#)

**Hackerrank:** [/raghav1251999](#)

**E-mail:** [work.raghavsethi@gmail.com](mailto:work.raghavsethi@gmail.com)

**Portfolio:** [raghavsethi](#)

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## EDUCATION

**I.K. Gujral Punjab Technical University**, Kapurthala | *B.Tech*

2017 - 2021, Computer Science Engineering, CGPA: 7.85

**Blue Bells Model Senior Secondary School**, Gurgaon | *Intermediate*

2017, Percentage: 82.75%

**Blue Bells Model Senior Secondary School**, Gurgaon | *Matriculation*

2015, CGPA: 8.5

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## PROJECTS

### SudokuAR

Augmented Reality Sudoku solver that can identify and solve Sudoku puzzles within both photos and videos

- Capable of detecting multiple Sudoku puzzles at once, and it works well under varying lighting conditions and rotations.
- Designed a powerful digit recognition system that uses a custom **CNN** pipeline, which includes advanced preprocessing and image augmentation techniques.

### Face-Recognition

Developed a robust end-to-end Face-Recognition system that implements the **FaceNet** paper. To ensure high-quality input data, I utilized **Dlib** for preprocessing and designed a custom **semi-hard online triplet generator** and loss function for further fine-tuning.

- Achieved exceptional results, with a **97% F1 score** and **99.5% accuracy** after fine-tuning on a sub-dataset of **Labeled Faces in the Wild (LFW)**. These results are a testament to the system's effectiveness and the quality of its implementation.
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