

# Yash Sharma

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[github.com/yashsharma79](https://github.com/yashsharma79)

## Research Experience

Rutgers SASN and Rutgers NB collaboration

**Research Assistant ( Advisor: Karl Stratos)**

Mar 2022 – May 2022

Rutgers University, NJ

- Natural Language Processing to measure language complexity of speech samples for predicting Alzheimer's disease risk
- Used transformers for constituency parsing and measuring text coherency

Rutgers Center for Cognitive Science

**Research Assistant (Data Science and Virtual Reality)**

Oct 2021 – Jan 2022

Rutgers University, NJ

- Data science with numpy and pandas to understand how visual decision-making in visual wayfinding works
- Programmed virtual reality experiment for visual decision-making experiments

## Professional Experience

Yoryo Technologies

**Software Engineer**

Jan 2019 – June 2021

Pune, India

- Led development of optimisation algorithms for solving capacity management constraints, producing 20% savings in logistics cost
- Implemented graph algorithms for vehicle routing, improving resource utilisation from 70% to 95%
- Data architect for processing supply chain data for organisations in different domains (healthcare, manufacturing, 3PL)

Quark Experiences Pvt. Ltd.

**Virtual Reality Engineer**

Jun 2017 - Dec 2018

Pune, India

- Produced image processing pipeline in C++, reducing deployment time down from 6 hours to 5 minutes
- Developed machine design approval tool for manufacturers, to detect defects in virtual reality
- Created augmented reality mobile app for visualising textile design (1K+ downloads on Play Store)

Persistent Systems

**Software Engineer Intern**

Sep 2016 – May 2017

Pune, India

- Simulated cloud environments using [CloudSim](#) to evaluate availability/downtime. Compared data encryption algorithms

## Education

Masters in Computer Science

**Rutgers University, New Brunswick**

Sep 2021 – Present

New Jersey, USA

- Coursework: ML, NLP, Algorithms and Data Structures, Mathematical Foundations of Data Science, Quantum Computing

Bachelors in Computer Engineering

**University of Pune**

Aug 2013–Jun 2017

Pune, India

## Projects

[Cross modal machine learning for video-text representation](#)

[Modelling knowledge representation about matter through causal inference](#)

[Neural networks from scratch](#)

[Computing entanglement entropy for tripartite states and graph states](#)

[Virtual Reality to treat phobias](#)

## Presentations

[Scaling Language Models:Methods, Analysis & Insights from training Gopher](#)

## Technologies

**Languages:** Python, C++, C#, C

**Libraries:** numpy, pandas, matplotlib, CUDA, igraph, networkX

**Tools:** PyTorch, Tensorflow, Git, AWS, SQL

**Game engines:** Unity3D, Unreal Engine

## Awards

- [Gold Badge in Problem Solving](#)
- Bronze medals - World CodeSprint 8 & Week of Code 24