

Yash Sharma

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Work Experience

Rutgers Center for Cognitive Science

Research Assistant

Oct 2021 – Present

Rutgers University, NJ

- Built experiments to quantify visual decision making in humans (using virtual reality)
- Data analysis in python that resulted in supporting the hypothesis
- Worked with psychologists & experienced inter-disciplinary research

Yoryo Technologies

Software Engineer

Jan 2019 – June 2021

Pune, India

- Designed & solved **constraint satisfaction problems** producing 20% savings in logistics cost
- Implemented graph algorithms for vehicle routing & capacity management using [Google OR-Tools](#) resulting in improved resource utilisation from 70% to 95%
- Distributed systems programming** for generating large dispatch schedules in parallel
- Created pipeline for processing supply chain data that helped get 2 large MNCs as new customers

Quark Experiences

Software Engineer

Jun 2017 - Dec 2018

Pune, India

- Produced **image processing pipeline in C++**, reducing deployment time down from 6 hours to 5 minutes
- Design approval tool for manufacturers to detect machine defects
- Network programming to live-stream VR on the web with [Three.js](#), eliminating need for downloading any app
- Created augmented reality mobile app for textile design try-outs (1K+ downloads)

Persistent Systems

Software Engineer Intern

Sep 2016 – May 2017

Pune, India

- Simulated cloud environments using [CloudSim](#) to evaluate reliability (availability/downtime) and security
- Compared speed of data read/write for different data encryption algorithms namely - AES, Blowfish, and RSA

Personal projects

Virtual Reality to treat phobias

To help people overcome their phobias by facing them in a non-threatening simulated environment.

Peak Spirit

2D video game creating using plain Java without a game engine

Education

Masters in Computer Science

Rutgers University, New Brunswick

Sep 2021 – Present

New Jersey, USA

- Specialisation: AI/ML.
- Member of Quantum Information group working on Entanglement Entropy
- Coursework: Mathematical Foundations of Data Science, NLP, Algorithms and Data Structures

Bachelors in Computer Engineering

University of Pune

Aug 2013–Jun 2017

Pune, India

ML Research & Projects

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

[Neural networks from scratch](#)

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

Technologies

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

Libraries: numpy, pandas, matplotlib, CUDA, igraph

Tools: PyTorch, Git, AWS, Linux, SQL

Game engines: Unity3D, Unreal Engine

Awards

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