

# SUYASH ROY

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## EDUCATION

### University of Southern California

January 2025-Present

#### Master of Science in Computer Science

- Analysis of Algorithms (CSCI - 570) | Foundations of AI (CSCI - 561) | Machine Learning for Data Science (DSCI - 552) | Applied Natural Language Processing (CSCI - 544) | Information Retrieval and Web Search Engines (CSCI - 572) |

### Kalinga Institute of Industrial Technology (KIIT)

June 2018-June 2022

#### Bachelor of Engineering in Information Technology

- Operating Systems | Computer Networks | Software Engineering | Machine Learning | Data Analytics

## PROFESSIONAL EXPERIENCE

### Associate, TMT (Tech Media Telecommunications)

July 2022-December 2024

Bain Capability Network, Gurgaon, India

- Drove strategic cost optimization for Bain's flagship telecom product 'LUMI', supporting CAPEX/OPEX planning across 10+ global cases and delivering actionable insights in collaboration with leadership and partners
- Led geospatial and market analysis for 5+ Private Equity due diligence cases, analyzing telecom asset value (wireline/wireless) and identifying high-IRR markets for fiber/tower expansion
- Built advanced models and tools (e.g., Broadband Market Scanner) to examine long tail of U.S. broadband providers (200+), forecast fiber builds, and visualize competitive landscapes using demographic and secondary data
- Evaluated network performance, R&M, energy efficiency, and rental costs for an APAC client, to provide insights and develop tool to reduce costs by a network cost transformation program determining RM 75M in savings (7.5% on AOP)
- Optimised Alteryx workflows by root cause analysis to ensure smooth inter-team collaboration and resource load by 20%

### Analyst Intern, TMT (Tech Media Telecommunications)

January 2022-June 2022

Bain Capability Network, Gurgaon, India

- Served a leading NA Telco to cooperate on market expansion strategies for wireless offerings, roughly evaluated attractiveness of 6M+ households by leveraging machine learning and data analysis to devise a cluster based expansion strategy
- Innovated 'Likelihood To Switch' (LTS) metric, computing market attractiveness for Telcos looking for expansion by building new assets or improve existing offerings, metric was deployed as a capability across various (5+) cases

### Full Stack Developer Intern, CFO Tech

May 2021-December 2021

HighRadius, Bhubaneswar, India

- Leveraged J2EE (Spring, Struts and Hibernate) and ReactJS to setup UI screen and backend integration with multiple databases for the 'CFO- Tech' division, lead end to end development of 1 key functionality, affecting product decisions
- Tested peer deliverables to ensure seamless integration for UI and zero defect work

## ACADEMIC PROJECTS

### Team Member, InstaCam, Bhubaneswar, India

January 2022-March 2022

- Utilized ReactJS and MongoDB to develop a social media platform (InstaCam) combining aspects of multiple different social media platforms into an application unique in its own, created for the undergraduate capstone project

### Lead Coder, AI-Powered Portfolio Website, Los Angeles, CA

August 2025

- Created a modern portfolio website with AI chatbot integration with particle animations, AI-powered chatbot and responsive design using ReactJS, NodeJS, Tailwind CSS and Gemini API . Hosted via Vercel at "https://suyashroy.me"

### Team Member, Mental Health Medical RAG with Semantic Analysis, Los Angeles, CA

August 2025-Present

- Constructed a medical RAG with semantic analysis to analyse and classify the concern levels regarding mental health via social media posts from Reddit, X etc.
- Trained the agent on 10k+ posts and comments from 5+ subreddits regarding mental health to analyse text utilising advanced NLP and suggest helpful measures for high concern posts based on publicly available helpline information

## TECHNICAL SKILLS

Programming Languages: Python, Java, SQL, ReactJS, HTML, CSS, JavaScript

Concepts and Methodologies: Operating Systems, OOPS, Data Structures, DBMS, Full Stack Development, Machine Learning

Tools and Software: Alteryx, Heavy.AI, Microsoft Office Tools, Git and Github (Version Control) , Vercel