# Kshitiz Kumar Sinha

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#### PROFESSIONAL SUMMARY

B.S. student in Engineering Sciences at IISER Bhopal with strong interests in Electrical Engineering, Computer Science, Data Science, and Quantitative Finance. Currently working as a Gold Tier Research Consultant at WorldQuant BRAIN. Skilled in Python, machine learning, algorithm design, and statistical modeling. Experienced in interdisciplinary projects involving AI, finance, and intelligent systems.

## **EDUCATION**

# Indian Institute of Science Education and Research, Bhopal

Aug 2023 - Present

Bachelor of Science in Engineering Sciences

Focus: Electrical Engineering, Computer Science, and Data Science

Relevant Coursework: Linear Algebra, Data Structures, Signals & Systems, Econometrics, Probabil-

ity & Statistics, Basic Electronics, Microeconomics

Workshops: Quantitative Finance, Arduino, LaTeX, Mathematica, Bio-informatics

Clubs: EECS Club, Comix Club

## **EXPERIENCE**

WorldQuant BRAIN — Research Consultant (Gold Tier)

May 2025 - Present

- Promoted to Research Consultant after successful performance as Conditional Consultant.
- Designed and submitted 20+ alpha signals for global equity markets.
- Used Python and statistical modeling for back-testing and analysis.

## **PROJECTS**

## **Diabetic Retinopathy Progression Prediction**

[Repository] [Dashboard]

- ML model using ensemble techniques to predict progression from retinal features.
- Achieved 85%+ accuracy. Tools: Python, Scikit-learn, OpenCV, Streamlit.

#### **Cancer Cell Classification Dashboard**

[Repository] [Dashboard]

- Developed interactive dashboard for breast cancer classification using Streamlit.
- Compared models: SVM, KNN, Logistic Regression.

#### Self-Repairing Internet Protocol (SRIP)

Built a fault-tolerant protocol integrating RL and anomaly detection.

• Simulated fault response and network self-healing behavior.

## **SKILLS**

Languages: Python, Java, C, SQL, JavaScript

**Libraries**: Scikit-learn, Pandas, TensorFlow, NumPy, Streamlit, Seaborn **Finance**: Quantitative Research, Alpha Generation, Time-Series Analysis **Tools**: AutoCAD, MATLAB, SimuLink, Fusion360, Mathematica, LaTeX

# **CERTIFICATIONS**

- WorldQuant BRAIN Gold Tier Certification
- WorldQuant BRAIN Quantitative Finance Starter
- Accenture Software Engineering Job Simulation

#### **ACHIEVEMENTS**

International Quant Championship (IQC) 2025 - Stage 1

• World Rank: 113 India Rank: 29

• Qualified for Stage 2 [Proof of Performance]

## **ACADEMIC ACTIVITIES**

- Engineering Design Project: 3D printed balloon-powered car
- Programming Assignments: Python (Intro to CS), R (Econometrics), Stats Modeling
- Workshops: Fluid Dynamics, Arduino Hardware, Bio-informatics, Mathematica