



Rudra Desai
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EXPERIENCE

Squarepoint Capital – Desk Quant Analyst (October, 2023 - Present)

- Developed a suite of internal tools utilizing a blend of Q & Python to support quantitative researchers
- Designed Tableau dashboards to streamline the analysis of trade fees, enhancing data visualization and decision-making processes
- Engineered Excel workbooks integrating a Q backend to provide traders with comprehensive ticker analytics

Amazon – Software Development Engineer (July, 2022 - September, 2023)

- Contributed in the development and deployment of Amazon’s largest **IoT Network of 1.5M+ devices**
- Orchestrated design of a **Test System** to expedite Quality Assurance, resulting in a **90% reduction** in run-time
- Leveraged **event-driven** libraries such as Asyncio to concurrently **test 100+ IoT devices** in one go
- Cross-compiled and ported **Python** with its associated **Linux** dependencies to a **microcontroller** for efficient testing

Narrato – Product Development Intern (Jan, 2022 - Mar, 2022)

- Enhanced an **AI-based** content creation tool to generate 1000+ SEO friendly blogs & articles daily.
- Integrated **OpenAI’s** APIs into **15+ use cases**, enabling faster adoption of Narrato platform.
- Troubleshoot platform errors in **Django & React applications**, streamlining process operations by 40%.
- Deployed a **multi-layered NLP model**; achieved 95% accuracy in **real-time content evaluation** & rating.

American Express – Security Analyst Intern (June, 2021 - Jul, 2021)

- Developed a robust **API server** leveraging **Django** to deliver critical security reports across internal software
- Assessed **3000+ vulnerabilities**, identified true positives, and debugged **affected components** in production
- Automated go-live processes with Python scripts, which expedited internal library updates in the **Jenkin’s CI/CD pipeline** resulting in over **10% time savings**

ACHIEVEMENTS

- Secured All India Rank **115 out of 1.1M** candidates in Joint Entrance Examination Advanced (2018)
- Awarded alumni-funded **scholarship** covering **100% tuition fees** at IIT Madras, based on the JEE Advanced performance (2018)
- Ranked in the top 5% amongst 10K teams in Prosperity (an **algorithmic Trading contest** organized by IMC) (2024)

PROJECTS

NSE Stock Scanner – Personal Project

- Designed a stock scanner for **NSE** that utilizes user-defined criteria to yield optimal returns
- Created a **strategy builder** for **technical analysis**, offering indicators such as **BollingerBands, MACD and RSI**
- Built a comprehensive **back tester** using **Pandas** and **Numpy** to track historical performance and fine-tune existing strategies
- Leveraged **NodeJS** to web-scrape on market data from **NSE** for archival purposes

Snap-n-Solve – Personal Project

- Constructed an automatized **solver** to generate solutions utilizing photographs of sudoku puzzles
- Utilized **canny edge detection (OpenCV)** and **digit recognition (Tensorflow)** model to extract the sudoku instance
- Successfully created the solution with the **backtracking method** in over 90% of cases

SimpleFS – Team Project

- Developed a disk-based file system at the machine level for efficient **storage and retrieval** of files and directories.
- Implemented **hard resetting and password protection** to guarantee optimal security.
- Engineered 10 essential Linux commands (e.g. ls, cp, mv, etc.) with accompanying documentation

COURSEWORK

Quant & Finance: Probability & Statistics, Linear Algebra, Accounting & Finance for Engineers, Principle of Economics, Fundamentals of Operations Research

Computer Science: Blockchain and its applications, Computer Networks, Operating Systems, Machine Learning, Deep Learning, Database Management System, Network Security, Distributed Algorithms, Computer Architecture

EDUCATION

PROGRAM	INSTITUTION	CGPA/PERCENTAGE	YEAR OF COMPLETION
B. Tech. CSE	Indian Institute of Technology Madras	8.81/10	2022
XII Grade	Shivashish Public School	91.4%	2018