

# Job Notification Form, IIT Delhi

## Company Overview

**Name:** APT Portfolio Private Limited

**Website:** <https://aptportfolio.com/>

**Company Type:** Other (High Frequency Trading)

**Description:** A.P.T. Portfolio is a proprietary trading group, specializes in quantitative strategies, statistical analysis and algorithms. It was set up in 2009, and has grown rapidly to become the largest proprietary trading house in India.

A.P.T. Capital was founded in 2015 in the UK with a view to expand trading operations in Europe, USA and South America. With an exceptionally talented pool of employees who are continuously looking to challenge their limits, A.P.T. Portfolio is poised to become a global player in algorithmic trading.

A.P.T. has its offices in Delhi, Bangalore, Gandhinagar and London.

## Job Details

**Designation:** Software Engineer

**Type:** Other (Full Time)

**Place of Posting:** Delhi/Bangalore

**Job Details:** The candidate will be expected to do one or more of the following tasks in each project. A projects duration could span from 2-3 weeks to a few months, and the entire project, including design, development, review and testing is typically split among members of small teams (2-5 people).

1. Developing low latency C++ software for electronic trading in the most competitive financial markets. Writing efficient code by choosing the best algorithms and data structures, but also developing and leveraging knowledge of x86 processor architecture and FPGA to optimize code for a specific execution environments.

2. Co-designing and developing low latency execution algorithms with traders and FPGA developers.

3. Implementing application-level network protocols in C++ to connect to new trading venues. Developing a deep understanding of the nuances in each such protocol and optimizing code to gain advantage from these.

4. Investigating latencies and jitter from test and production data and fixing identified issues. Designing experiments to root cause such issues without disrupting production environments.

5. Improving our big data infrastructure which is used for market simulations and post-trade analysis. Enhancing capabilities of our statistical learning and market-simulation logic which models a real market, including all its variances, as accurately as possible.

## Technical requirements

We believe that a lot of learning will happen on the job itself. The most important requirement is a high motivation to learn, to seek continuous feedback and to improve with it.

There will be an initial training period of 1-2 months, where the candidate will be exposed to all technical concepts relevant to their work.

A keen interest in the functioning of financial markets, quantitative research and data science will be helpful, but someone curious (and not already knowledgeable) about this industry is welcome.

1. Open to computer science, electrical engineering and engineering physics students (B.tech/Dual Degree/M.Tech) courses with CGPA 8 and above, only.
2. Proficiency in algorithms and data structures. Some undergraduate-level formal coursework covering these topics is required.
3. Good understanding of system fundamentals like CPU architectures, operating systems and networking.
4. Good understanding of basic statistics and data analysis concepts. Some formal undergraduate-level coursework in probability/statistics is required.
5. Solid understanding of object-oriented programming concepts, and experience in programming either in C++ or C. A good knowledge of optimizing code compilers will be a big plus. The candidate must be keen to learn C++ in detail, including the newest features.
6. Basic knowledge of some scripting language like Python/Perl/Bash.

**Joining By:** 1 June 2022

## Salary Details

<b>CTC:</b>	4,900,000 INR Per Annum
<b>Gross:</b>	4,900,000 INR Per Annum
<b>CTC Breakup:</b>	Base- 3000000 Sign on Bonus- 100000 Bonus- 1500000 Non cash benefits- 300000
<b>Perks / Bonus:</b>	Competitive salary and performance based bonuses 4 weeks of paid vacations plus paid holidays Meal vouchers/ coupons Health and wellness benefits Medical, Life & Accident Insurance WFH with max of 12 days in a year

## Selection Process

<b>Resume Shortlist:</b>	Yes
<b>Written Test:</b>	No
<b>Online Test:</b>	Yes

<b>Group Discussion:</b>	No
<b>Medical Test:</b>	No
<b>Personal Interview:</b>	Yes
<b>No. of Rounds:</b>	3
<b>No. of Offers:</b>	2
<b>Minimum CGPA:</b>	7.5+

## Eligibility

<b>Recruiting PHDs:</b>	No
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<b>Eligible Departments:</b>	<p>B.Tech in Biochemical Engineering &amp; Biotechnology, B.Tech in Chemical Engineering, B.Tech in Civil Engineering, B.Tech in Computer Science &amp; Engineering, B.Tech in Electrical Engineering, B.Tech in Electrical Engineering (Power and Automation), B.Tech in Engineering Physics, B.Tech in Engineering and Computational Mechanics, B.Tech in Materials Engineering, B.Tech in Mathematics &amp; Computing, B.Tech in Mechanical Engineering, B.Tech in Production &amp; Industrial Engineering, B.Tech in Textile Engineering, B.Tech and M.Tech in Biochemical Engg &amp; Biotechnology, B.Tech and M.Tech in Chemical Engineering, B.Tech and M.Tech in Computer Science &amp; Engineering, B.Tech and M.Tech in Mathematics &amp; Computing, M.Tech in Applied Optics, M.Tech in Atmospheric-Oceanic Science and Technology, M.Tech in Biomedical Engineering, M.Tech in Chemical Engineering, M.Tech in Communications Engineering, M.Tech in Computer Science &amp; Engineering, M.Tech in Computer Technology, M.Tech in Construction Engineering &amp; Management, M.Tech in Control &amp; Automation, M.Tech in Energy &amp; Environment Technologies and Management, M.Tech in Energy Studies, M.Tech in Engineering Analysis &amp; Design, M.Tech in Environmental Engineering &amp; Management, M.Tech in Fibre Science &amp; Technology, M.Tech in Geotechnical and Geoenvironmental Engineering, M.Tech in Industrial Engineering, M.Tech in Industrial Tribology &amp; Maintenance Engineering, M.Tech in Instrument Technology, M.Tech in Integrated Electronics &amp; Circuits, M.Tech in Materials Engineering, M.Tech in Mechanical Design, M.Tech in Molecular Engineering: Chemical Synthesis &amp; Analysis, M.Tech in Optoelectronics &amp; Optical Communication, M.Tech in Polymer Science &amp; Technology, M.Tech in Polymer Science and Technology, M.Tech in Power Electronics, Electrical Machines &amp; Drives, M.Tech in Power Systems, M.Tech in Production Engineering, M.Tech in Radio Frequency Design &amp; Technology, M.Tech in Rock Engineering &amp; Underground Structures, M.Tech in Solid State Materials, M.Tech in Structure Engineering, M.Tech in Telecommunication Technology &amp; Management, M.Tech in Textile Chemical Processing, M.Tech in Textile Engineering, M.Tech in Thermal Engineering, M.Tech in Transportation Engineering, M.Tech in VLSI Design Tools &amp; Technology, M.Tech in Water Resources Engineering, M.Sc in Chemistry, M.Sc in Cognitive Science, M.Sc in Economics, M.Sc in Mathematics, M.Sc in Physics, B.Tech in Civil Engineering and M.Tech in Geotechnical and Geoenvironmental Engineering, B.Tech in Civil Engineering and M.Tech in Water Resources Engineering, B.Tech in Mechanical Engineering and M.Tech in Thermal Engineering, B.Tech in Mechanical Engineering and M.Tech in Computer Science &amp; Engineering, B.Tech in Civil Engineering and M.Tech in Structural Engineering, B.Tech in Civil Engineering and M.Tech in Construction Engineering &amp; Management, B.Tech in Textile Engineering and M.Tech in Computer Science &amp; Engineering, B.Tech in Engineering Physics and M.Tech in Computer Science &amp; Engineering, B.Tech in Chemical Engineering and M.Tech in Computer Science &amp;</p>
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Engineering, B.Tech in Production & Industrial Engineering and M.Tech in Computer Science & Engineering, B.Tech in Mechanical Engineering and M.Tech in Computer Science & Engineering, B.Tech in Mechanical Engineering and M.Tech in Computer Science & Engineering, B.Tech in Production & Industrial Engineering and M.Tech in Production Engineering, M.S.(R) in Applied Mechanics, M.S.(R) in Biochemical Engineering and Biotechnology, M.S.(R) in Biological Sciences, M.S.(R) in Telecommunication Technology and Management, M.S.(R) in Civil Engineering, M.S.(R) in Chemical Engineering, M.S.(R) in Computer Science & Engineering, M.S.(R) in Electrical Engineering, M.S.(R) in Sensors, Instrumentation and Cyber-physical System Engineering, M.S.(R) in Automotive Research and Tribology, M.S.(R) in VLSI Design Tools and Technology, M.S.(R) in Mechanical Engineering, M.S.(R) in Materials Science and Engineering, M.S.(R) in Information Technology