

# Job Notification Form, IIT Delhi

## Company Overview

**Name:** ProtoTech Solutions

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

**Company Type:** Information Technology

**Description:** ProtoTech Solutions is a leading provider of 3D software technology solutions. If you have a product idea which requires 3D technology, we can help you. We can build the product for you which is best in quality and bring it to market quickly. ProtoTech also provides technology solutions for 3D data import/export, 3D visualization and 3D object measurements. Our products are used by customers from over 80 countries in the world. Many of our customers are highly reputed global technology and engineering multinational companies.

We are experts in 3D visualization, data interoperability and application development. We provide consulting and custom software development. We are used as an R&D software development house by world's leading software companies. We have developed solutions for agricultural, medical, engineering design, civil, architecture, manufacturing and many other industries.

ProtoTech Solutions Pvt Ltd was founded in 2005 and has decades of staff years of software solutions development expertise. We are familiar with almost every software technology component in the 3D technology domain (2D/3D visualization, data exchange, solid modeling, CAD/CAM/CAE, 3D printing etc.). Our 80+ software experts can help you quickly choose a technology and build a product and bring it to market. We are familiar with all platforms (Windows, Mac, Linux etc.), mobile apps (iOS, Android etc.), Cloud technologies (AWS, GCP, Azure etc.). We are also partners with companies like Microsoft, Autodesk, Solidworks and many other engineering technology providers and can help you build be spoke solutions around their offerings.

## Job Details

**Designation:** Associate Software Developer

**Type:** Core (Technical)

**Place of Posting:** Pune

**Job Details:** Project-1

Project Details: 3DMU

ProtoTech Solutions is a leading provider of 3D software technology solutions. If you have a product idea that requires 3D technology, ProtoTech also provides technology solutions for 3D data import/export, 3D visualization, and 3D object measurements. Our products are used by customers from over 80 countries in the world. Many of our customers are highly reputed global technology and engineering multinational companies.

ProtoTech's 3D Measure Up is a measurement technology platform that can help you provide a perfect fit to your customers. 3D Measure Up helps you accurately identify landmarks on objects and provides hundreds of measurement parameters viz. distances, girths, heights, surface areas, volumes etc. We are primarily set to work on 2D photos and 3D scans of the human body (full or partial), but the core technology is extensible to any object or shape. We have taken some very special measures using a combination of computational, geometrical and machine learning algorithms to give very accurate results.

Prototech is seeking highly qualified people for the position of AI/ML Engineer and AI/ML Researcher. The team pursues research & development in the areas of machine learning (ML) with a particular focus on deep learning (DL), computer vision (CV), optimization, and reinforcement learning (RL) applied to problems in 3D applications. As a member of the team, you will work on some of the most ambitious technical problems, develop new ML solutions to the 3D and Contactless measurements domain that will impact future Prototech products, and collaborate with the product teams to integrate your ideas into products.

You may meet or have interest in any one of the following qualifications:

In-depth expertise in deep learning (DL) and statistical machine learning (ML)  
Expertise in one or more CV, NLP, optimization, RL, pattern recognition fields, and/or computer graphics fields  
Good presentation skills  
Passionate about building extraordinary products  
Excellent programming skills in Java, Python, C/C++, CUDA or other GPGPU is a plus  
Knowledge of common ML frameworks  
Expected to perform well in a fast-paced environment, to execute on the tasks assigned, to meet the production deadlines and, at the same time, to explore independently new innovative ideas that can improve and transform the product experience of our customers  
Be able to deliver ML technologies aligned with the core values of Prototech, ensuring the highest standards of quality, scientific rigor, innovation, and respect for user privacy  
Creative, collaborative, & product-focused

Education/Qualifications

Pursuing PhD, Masters, or Bachelors degree in Machine Learning, Human-Computer Interaction, Natural Language Processing, Robotics, Computer Science, Data Science, Statistics or related areas.

Skills required:

JavaScript, Python, Machine Learning, and Computer Vision

Quick Product Introduction:

<https://youtu.be/JsPuzfCKom4>

More Information:

[www.prototechsolutions.com](http://www.prototechsolutions.com)

[www.3dmeasureup.com](http://www.3dmeasureup.com)

Project 2-

This is for CDS CREO JSON Exporter where we need to identify the type of surface and accordingly manage the tessellation to control a number of triangles and in return the size of json files.

For a popular CAD tool, research on identifying the type of surface for e.g. planar, cylindrical, spherical of given CAD part using a C++ tool kit.

Project 3:

In this project, we need to store IFC data in the Amazon Neptune graph database. Research work on cloud technology to store Building information modeling (BIM)

data in graph database and then query back accurately and efficiently to generate twin graph.

#### Project 4:

In this project, Configuration tool on a popular CAD tool from Autodesk to automate the process of designing stairs and generate manufacturing drawings for non CAD designers (for maybe with low skills) with some user inputs.

#### Job Description:

##### Roles and Responsibilities:

To develop and deliver codes for the work assigned in accordance with time| quality and cost standards.

To perform activities related to the creation of documents as per the client requirements.

To provide client support by presenting data, information, ticket resolution and day to day support activities like monitoring client requirements

To provide support for enhancement (major and minor) or new developments based on business requirements as provided by the client as well as from the functional and technical team on the project.

Ability to scope large elements of projects and calculate estimated delivery.

Responsible for meeting tight deadlines and managing multiple projects.

Ability to present and sell concepts to clients.

Building and mentoring the technical team.

##### Technical Skills-

Experience in C / C++ (Most preferred)/ Java/Python.

Experience in working with Third-Party libraries.

Ability to work as a team member.

Ability to work creatively and analytically in a problem-solving environment.

Fluency in English (verbal and written).

Conceptual knowledge of Geometry fundamentals.

**Joining By:** 1 June 2023

## Salary Details

|                                           |                                |
|-------------------------------------------|--------------------------------|
| <b>CTC:</b>                               | 800,000 INR Per Annum          |
| <b>Gross:</b>                             | 800,000 INR Per Annum          |
| <b>Base Salary:</b>                       | 800,000 INR Per Annum          |
| <b>Joining Bonus:</b>                     | 0 INR Per Annum                |
| <b>HRA:</b>                               | 0 (min) -0 (max) INR Per Annum |
| <b>Medical Allowance:</b>                 | 0 (min) -0 (max) INR Per Annum |
| <b>Other cash benefits part of gross:</b> | 0 (min) -0 (max) INR Per Annum |
| <b>RSUs:</b>                              | 0 INR Per Annum                |
| <b>ESOPs:</b>                             | 0 INR Per Annum                |
| <b>Performance/other bonuses:</b>         | 0 (min) -0 (max) INR Per Annum |
| <b>Other cash benefits</b>                | 0 (min) -0 (max) INR Per Annum |

|                      |                                                |
|----------------------|------------------------------------------------|
| Other Cash Benefits: | 0 (min) 0 (max) INR 1 cr Annual part of CTC:   |
| Other Cash Benefits: | Performance Awards                             |
| Bond:                | Yes                                            |
| Bond Details:        | 2 year bond but eligible for yearly increment. |

## Selection Process

|                     |     |
|---------------------|-----|
| Resume Shortlist:   | Yes |
| Written Test:       | No  |
| Online Test:        | Yes |
| Group Discussion:   | No  |
| Medical Test:       | No  |
| Personal Interview: | Yes |
| No. of Rounds:      | 3   |
| No. of Offers:      | 10  |
| Minimum CGPA:       | 6   |

## Eligibility

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recruiting PHDs:      | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Eligible Departments: | B.Tech in Biochemical Engineering & Biotechnology, B.Tech in Chemical Engineering, B.Tech in Civil Engineering, B.Tech in Computer Science & 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 Mathematics & Computing, B.Tech in Mechanical Engineering, B.Tech in Production & Industrial Engineering, B.Tech in Textile Engineering, B.Tech and M.Tech in Biochemical Engg & Biotechnology, B.Tech and M.Tech in Chemical Engineering, B.Tech and M.Tech in Computer Science & Engineering, B.Tech and M.Tech in Mathematics & 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 & Engineering, M.Tech in Computer Technology, M.Tech in Construction Engineering & Management, M.Tech in Control & Automation, M.Tech in Cyber Security, M.Tech in Electric Mobility, M.Tech in Energy & Environment Technologies and Management, M.Tech in Energy Studies, M.Tech in Engineering Analysis & Design, M.Tech in Environmental Engineering & Management, M.Tech in Fibre Science & Technology, M.Tech in Geotechnical and Geoenvironmental |

Engineering, M.Tech in Industrial Engineering, M.Tech in Instrument Technology, M.Tech in Integrated Electronics & Circuits, M.Tech in Materials Engineering, M.Tech in Mechanical Design, M.Tech in Molecular Engineering: Chemical Synthesis & Analysis, M.Tech in Optoelectronics & Optical Communication, M.Tech in Polymer Science and Technology, M.Tech in Power Electronics, Electrical Machines & Drives, M.Tech in Power Systems, M.Tech in Production Engineering, M.Tech in Radio Frequency Design & Technology, M.Tech in Rock Engineering & Underground Structures, M.Tech in Solid State Materials, M.Tech in Structural Engineering, M.Tech in Telecommunication Technology & 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 & 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, M.S.(R) in Machine Intelligence & Data Science, 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, 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 Civil Engineering and M.Tech in Structural Engineering, B.Tech in Civil Engineering and M.Tech in Construction Engineering & Management, M.S.(R) in Civil Engineering, M.S.(R) in Chemical Engineering, B.Tech in Textile Engineering and M.Tech in Computer Science & Engineering, M.S.(R) in Computer Science & Engineering, Master of Design in Industrial Design, M.S.(R) in Electrical Engineering, M.S.(R) in Energy Science and Engineering, M.S.(R) in Sensors, Instrumentation and Cyber-physical System Engineering, M.S.(R) in VLSI Design Tools and Technology, B.Tech in Mechanical Engineering and M.Tech in Thermal Engineering, B.Tech in Mechanical Engineering and M.Tech in Computer Science & Engineering, M.S.(R) in Mechanical Engineering, M.S.(R) in Materials Science and Engineering, Post Graduate Diploma for Visionary Leadership in Manufacturing, Masters in Public Policy, M.S.(R) in Information Technology