

The CAD Automation Salary Gap

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 Topic	Salary gap between CAD engineers and CAD automation engineers

Why two engineers with the same CAD experience earn very different salaries, and exactly what separates them.

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Same experience. Different salary.

Two engineers. Both have 6 years of SolidWorks experience. Both work in manufacturing in India. One earns 6 LPA. The other earns 18 LPA.

The difference is not the number of years. It is not the city they work in. It is not which company they joined.

One engineer uses CAD. The other builds tools that make CAD work at scale.



The salary gap between a CAD engineer and a CAD automation engineer is not about seniority. It is about what you can build that other engineers cannot.

I have spent 8 years on both sides of this gap. I was the CAD engineer doing manual work first. Then I learned the API and started building the tools. The difference in how companies see you, and what they pay you, is significant.

The numbers in India

Glassdoor and PayScale data from 2025 and 2026 tells a clear story:

- Standard CAD engineer in India: average 4.9 LPA, with most roles sitting between 3.2 LPA and 8.4 LPA
- CAD automation engineer in India: average 7.8 LPA, with experienced specialists earning 12.5 LPA to 20 LPA and above
- Senior automation roles at product companies and MNCs: 20 LPA to 35 LPA for engineers who can build enterprise tools on CAD APIs

The ceiling for a standard CAD role in India tops out around 8 LPA to 10 LPA for most engineers. The ceiling for a CAD automation specialist who can build configurators, automated drawing systems, and enterprise tools is 20 LPA and beyond.



That is not a 10 percent raise. That is a different pay band entirely. And it is accessible from the same domain knowledge you already have.

What actually creates the gap

The gap is not about knowing more CAD features. It is about three things:

1. You can solve problems no one else on the team can solve. A CAD engineer who knows the API can write a script to batch-export 300 drawings overnight. Everyone else would spend two days doing it manually. That engineer becomes essential in a way that general CAD proficiency does not.
2. You can build tools the company keeps using after you build them. A drawing QA checker, a product configurator, an automated BOQ system: these are assets that compound value over time. The engineer who builds them gets credit every time the tool runs.
3. You remove yourself from the headcount-to-output equation. When you automate something, output scales without more engineers. Indian manufacturing and AEC companies understand this and they pay differently for the engineer who creates that leverage.



You are not just doing engineering work faster. You are changing the economics of engineering work inside your company.

The three levels of value

Not all automation is valued the same. Here is how it stacks up in the Indian market:

Level 1: Task automation

Batch exports. Title block updates. File renaming, format conversion, layer cleanup. This is where most engineers start. Salary impact here is modest: you save hours, your manager notices, your next appraisal goes better. You might move from 5 LPA to 7 LPA.

Level 2: Design automation

Rule-based geometry. Models that generate from inputs. Configurations that update when one parameter changes. Variant generation across a product family. At this level you are not saving an engineer's time. You are replacing a process. This is where engineers break into the 10 LPA to 15 LPA range.

Level 3: Enterprise tools

Automated BOQ and costing systems. Product configurators that turn customer inputs into drawing packages. Drawing QA checkers that audit every sheet before release. Cloud tools that let procurement and project teams review designs without a CAD license. These are tools Indian engineering companies and MNCs buy and pay serious money to build internally. This is the 18 LPA to 35 LPA territory.



Most CAD engineers in India are stuck at level 1, or do not know level 2 and 3 exist. Not because they are out of reach. Because no one showed them the path.

Why the gap persists in India

Indian engineering colleges teach CAD as a drafting tool. SolidWorks, AutoCAD, CATIA: you learn to model, you learn the commands, you get certified. Nobody tells you there is an API underneath.

The result is an entire generation of competent CAD engineers who do not know that the tool they use every day is also a programmable platform. SolidWorks macros run in C#. AutoCAD has a .NET API. Revit was built on .NET from day one.

Meanwhile, manufacturing companies, defence contractors, AEC firms, and product companies in India are all actively looking for engineers who can build on these platforms. The roles are posted. The budgets are there. The talent pipeline is thin.



This is not a talent gap. It is an information gap. The engineers who find out about the API and act on it move into a lane with much less competition and much higher pay.

The path to closing the gap

Closing the gap does not require leaving engineering or doing a full career change. It requires adding one skill layer on top of what you already have.

- Learn C# basics: variables, loops, conditionals, methods. Four to six weeks with one hour per day. Free resources available, Visual Studio Community is free.
- Connect to your CAD tool's API: learn the object model, read the documentation, write your first macro. SolidWorks, AutoCAD, and Revit all have extensive API documentation.
- Automate one real task at your company: something you currently do manually that takes time. Ship it. Show it.
- Move to design automation: write a script that generates geometry from inputs. Understand how configurations work in code.
- Build one tool with lasting value: a checker, a report generator, a batch processor. Something the team uses without you running it every time.

Each step compounds. Each tool you build is proof you can do the next one. By the time you have shipped two or three automation tools inside a real engineering environment, you are in a different salary conversation entirely.



AI has compressed the learning curve. What took two years of consistent study a few years ago now takes four to six months. The barrier has never been lower.

The identity shift that matters more than the salary

The salary gap is real. But the more important shift is how your company sees you.

A CAD engineer is measured by what they personally produce. A CAD automation engineer is measured by the leverage they create for everyone else. That second role is harder to replace, harder to offshore, and harder to make redundant, because it is the role doing the automating.

In the Indian job market specifically, this skill is rare. Companies posting for SolidWorks API developers, CAD customisation engineers, and automation specialists struggle to fill those roles. When they find someone with both the engineering domain knowledge and the API skills, they pay to keep them.



You are not switching careers. You are upgrading the one you already have. The domain knowledge you spent years building becomes more valuable when you can turn it into tools.



ScriptedCAD teaches CAD engineers how to build automation tools on SolidWorks, AutoCAD, and Revit APIs. Start the path at scriptedcad.com