State of the RPA Developer Report 2020
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Fast forward to today.

RPA is now the fastest growing enterprise software in the world, according to Gartner. And RPA skills are among the most sought-after capabilities in the tech world, with LinkedIn projecting a 40% annual growth rate in postings for “RPA engineers” in its 2020 Emerging Jobs Report.

If you’re an RPA professional, you’ve definitely landed in a very sweet spot. That said, it is a newly emerging industry, and many of you have told us that it’s difficult to get your arms around how your experience compares to that of your peers and how this role is evolving over time.

We at UiPath set out to find out who RPA developers are—and what life is like for you today. We wanted to learn:

- Who is the profile of an RPA developer? What’s your educational and professional background and how did you come to RPA?
- How satisfied are you with your job, your impact, and your career prospects? What do you particularly like?
- Are there things you wish your employers would do to make you happier, more productive, and more fulfilled?

These are some of the areas we looked to shine a light on in this, the first-of-its-kind survey of RPA developers. We hope that the answers contained in the report that follows will, first and foremost, serve as a valuable resource for current and aspiring RPA professionals. And beyond that—we hope it will help CoE leaders, HR managers, and C-level executives better understand this emerging profession and the talented people who work within it.

Thanks for exploring it with us!

RPA provides an opportunity to deliver real value and change to my organization.

Note: quotes appearing throughout are taken from survey respondents’ written comments.
Methodology

The results in this report are from an online survey UiPath fielded via organic email and social media from July 21 to August 10, 2020.

1,510

Robotics Process Automation (RPA) professionals responded.

Their job titles included:

- RPA developers (71%)
- RPA leads / managers (11%)
- Solution architects (10%)
- RPA specialists (7%)
- RPA infrastructure engineers (1%)

Respondents included people from 84 countries, with the highest representation from India (35%), United States (9%), and Japan (5%).
What you told us: key findings

01 RPA activity is expanding, companies are hiring, and most of you think you’re in an important, impactful industry.
9 out of 10 say the RPA industry will expand significantly over next 5 years, and 70% say your own organization will hire more developers in the next year. 65% of you are seasoned tech professionals who’ve moved into RPA from related areas. 84% agree that your job as an RPA developer will have a positive impact on your next career move.

02 Your job satisfaction is very high, despite some day-to-day frustrations.
A whopping 96% of you say you’re satisfied with your RPA job, with just over half of you reporting that you’re “very satisfied.” 8 out of 10 feel challenged at work and believe that your organization values what you do. 84% agree that working as an RPA developer will have a positive impact on your next career move. While there are some frustrations in your day-to-day work, in general you’re satisfied with RPA as a career.

03 Nonetheless, many of you are on the move.
Globally, 17% of you are actively looking for a new job, and another 51% would at least listen to the offer. (In a hot job market, you’re open to new opportunities).

04 We found some interesting differences when we compared RPA developer experiences across region and company type.
Regionally, for example, those in Asia prioritize certifications more highly—and are also twice as likely to be looking for a new job. And regarding company type, in-house developers are more likely to be “very satisfied” than consultants (53% versus 47%), though overall satisfaction is on a par.

05 COVID is further accelerating RPA activity for many.
56% say the demand for RPA in their companies has increased—and 52% say they’re working longer hours, mainly because the number of projects has increased since the pandemic started.
Who you are

There’s a lot of diversity in survey respondents in terms of geography, ethnicity, industry focus, and company type and size.

But there were commonalities as well. You’re highly educated and tech- and RPA-skilled. And, while most of you are relatively new to RPA, you’re likely to have years of other professional experience to draw on.
India was the largest segment by far, representing about a third of the sample, followed by the European Union (EU).
Position
“RPA developer” was the main job title reported, but the sample also included adjacent RPA roles.

<table>
<thead>
<tr>
<th>Position</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPA developer</td>
<td>71%</td>
</tr>
<tr>
<td>RPA lead</td>
<td>11%</td>
</tr>
<tr>
<td>Solution architect</td>
<td>10%</td>
</tr>
<tr>
<td>RPA specialist</td>
<td>7%</td>
</tr>
<tr>
<td>RPA infrastructure engineer</td>
<td>1%</td>
</tr>
</tbody>
</table>

Gender
Respondents were predominantly male, in line with most tech fields.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>81%</td>
</tr>
<tr>
<td>Female</td>
<td>17%</td>
</tr>
<tr>
<td>Prefer not to say</td>
<td>2%</td>
</tr>
</tbody>
</table>
Size of company
Overall, almost a third of the respondents worked for large (10,000–49,999 employees) or very large (50,000+) companies.

Size of company by company type
Almost 40% of in-house employees work for companies of 10,000 or more (and only 16% work for companies of 100 or less). Those who work for consulting firms tend to work for either small companies or very large ones.
WHO YOU ARE

Type of company
While the majority were building automations in house, about a third were in consulting firms.

- 61% In-house
- 36% Part of consulting firm
- 3% Other

Of those working in-house
Those working in companies were almost twice as likely to work in a department than in a Center of Excellence (CoE).

- 59% Specific department
- 34% CoE
- 7% Other
Industry focus for automations
Respondents are building automations in a wide range of industries, led by Finance & Banking.

Note: respondents were asked for which industries they were building automations and could provide multiple answers.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance &amp; Banking</td>
<td>49%</td>
</tr>
<tr>
<td>Technology / Software</td>
<td>33%</td>
</tr>
<tr>
<td>Insurance</td>
<td>25%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>24%</td>
</tr>
<tr>
<td>Healthcare</td>
<td>23%</td>
</tr>
<tr>
<td>BPO (Business Process Outsourcing)</td>
<td>21%</td>
</tr>
<tr>
<td>Retail &amp; CPG</td>
<td>17%</td>
</tr>
<tr>
<td>Telecom</td>
<td>16%</td>
</tr>
<tr>
<td>Public Sector</td>
<td>14%</td>
</tr>
<tr>
<td>Other - Write In</td>
<td>13%</td>
</tr>
</tbody>
</table>

Activities performed
Respondents work across the entire automation process lifecycle.

Note: respondents were asked to report on work performed at least weekly and could choose multiple options.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build and test RPA solutions based on requirements</td>
<td>89%</td>
</tr>
<tr>
<td>Maintain, support and debug RPA solutions in production</td>
<td>75%</td>
</tr>
<tr>
<td>Work with business analysts to define requirements for a selected automation project</td>
<td>52%</td>
</tr>
<tr>
<td>Perform code review</td>
<td>50%</td>
</tr>
<tr>
<td>Estimate automation duration</td>
<td>46%</td>
</tr>
<tr>
<td>Work with a Solution architect to design the automation</td>
<td>42%</td>
</tr>
<tr>
<td>Evaluate the degree of difficulty in the planning and design phase</td>
<td>41%</td>
</tr>
<tr>
<td>Document implemented solutions</td>
<td>41%</td>
</tr>
<tr>
<td>Create DSD documentation</td>
<td>32%</td>
</tr>
<tr>
<td>Create dashboards to monitor performance</td>
<td>21%</td>
</tr>
</tbody>
</table>
Education: college degree
90+% have college degrees, the majority of which are in technical fields. Still, one out of five followed a business-focused course of study, and more than one in ten had degrees in "other" areas, indicating there's room in the industry for a broad set of skills and knowledge.

Note: respondents could provide multiple answers

Who participated?

Who you are

Programming languages
Most RPA professionals know at least one programming language, with SQL being most common. On average, RPA developers know 3.7 programming languages. Only 5% indicate they don't know any other language.

Note: respondents could provide multiple answers
RPA work experience

Seven out of ten respondents have had less than two years of RPA experience, and only 2% of respondents have more than 5 years of RPA experience—indicating that today’s RPA developers are truly pioneers in a newly emerging space.

WHO YOU ARE

I came to RPA so I would get to build something and solve problems.

I wanted a career that would last. RPA was my preferred technology, because it matched my abilities and coding skills.
WHO YOU ARE

Total work experience
Three-quarters of respondents have worked 3+ years in a professional role.

- 6 years or more: 46%
- 3 to 5 years: 29%
- 1 to 2 years: 18%
- Less than 1 year: 7%

Type of prior work experience
About half the respondents came to RPA from the technical side; the other half entered from business roles.

- Software Developer: 54%
- Business Analyst: 26%
- Project Manager: 17%
- Operations Manager: 10%
- Other: 35%

“Other” ranges from scientists to sociologists to doctors to musicians and beyond…

65% had held another professional position before coming to RPA.
A deep dive into job satisfaction

Are you happy at work? What keeps you productive and motivated? In this section, we explore the things that are driving your high satisfaction—and discuss opportunities to make work even more fulfilling.
Overall, you’re much happier than most

Although there’s always a little room for improvement

A DEEP DIVE INTO JOB SATISFACTION

01 You know you’re making a difference and it’s recognized

02 You’re in a growth industry that you believe will afford you challenges and advancement

03 You like learning and honing your skills and connecting to a large global community

04 However, there are some aspects of the day-to-day that you’d like to improve upon
Are we happy yet?
For the majority of RPA developers, the answer is yes

96% of RPA professionals say they’re either “satisfied” to “very satisfied” with their job. Only 4% say they’re not satisfied.

That’s pretty extraordinary.

For instance, a recent Workforce 2020 survey of workers around the world revealed that only 30% of respondents in North America and 41% in Europe were satisfied.

So, what makes RPA professionals happier? Read on...
You’re having a positive impact

You feel the work you do matters…and most of you think your organization agrees

The work engages you
81% agree that “I feel challenged by my work.”

- 48% Agree
- 33% Strongly agree
- 16% Neutral
- 3% Disagree/ strongly disagree

Your contributions are acknowledged
80% agree that “my organization values the work I do as an RPA developer.”

- 42% Agree
- 38% Strongly agree
- 16% Neutral
- 3% Disagree
- 1% Strongly disagree

And by and large, you don’t feel overworked
(only 15% said they were working too much).
You believe you’re in the right place at the right time

The industry is growing—and you feel that your career will grow with it

You say you’re working in a hot new technology area in a rapidly growing industry…

92% agree that “the RPA industry has a high potential for growth over the next 5 years.”

...that will provide you great career options

84% agree that “my job as an RPA developer will have a positive impact on my next career move.”

RPA is the next big thing and with growth in digitization, I see a lot of scope and interesting and innovative things coming up.

RPA is the future of modern IT day-to-day operations. Learning new technology is the best way to keep up with the growing needs of corporate clients.

RPA is one of the growing industries in the world... there will be more opportunities and demand for the role of RPA developer in the future.
How easy/difficult was it to transition into your role as an RPA developer?

- 46% said it was very/moderately easy to transition to RPA
- 25% said it was somewhat/very hard
- 29% were neutral
How have you educated yourself about RPA in the past 12 months?

4 out of 5 have an RPA certification, and only 1% of you aren’t pursuing any training.

Note: respondents could select multiple options

- Online courses: 89%
- Documentation: 66%
- Video tutorials (e.g., YouTube): 61%
- Online forums: 57%
- Webinars: 45%
- Blogs / newsletters: 30%
- Local meetups: 15%
- Tech conferences: 15%
- Mentorship: 14%
- Podcasts: 5%

79% have an RPA certification. Of that group, 96% have UiPath certification.
You are connected with the global RPA community
And you engage with it actively

A DEEP DIVE INTO JOB SATISFACTION

Which communities do you participate in?
Note: respondents could select multiple options

- **86%** - UiPath
- **62%** - LinkedIn
- **37%** - GitHub
- **33%** - Stack Overflow
- **22%** - Automation Anywhere
- **17%** - Meetup
- **15%** - Blue Prism
- **13%** - Microsoft Forums
- **12%** - Slack Communities
- **10%** - Discord

On average you’re participating in 3.1 communities.
What are your biggest frustrations at work?

The most common issues involve getting your arms around the processes you want to automate.

- Documentation is incomplete or inaccurate: 46%
- I get asked to automate processes that aren't optimized or suitable for automation: 44%
- It's difficult to get what I need from business owners: 37%
- There are too many variations of the process: 32%
- Business workflows are too complex: 17%
- I have too much work to do: 15%
- It's hard to stay up to date with RPA products: 14%
- I lack adequate training: 8%

Other - Write In: 7%

None of the above: 7%
Of those activities you work on, which do you and don't you enjoy?

Maintenance, documentation, and planning are notable pain points.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Enjoy (%)</th>
<th>Not Enjoy (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build and test RPA solutions</td>
<td>83%</td>
<td>6%</td>
</tr>
<tr>
<td>Maintain, support, and debug RPA solutions</td>
<td>39%</td>
<td>32%</td>
</tr>
<tr>
<td>Work with business analysts to define requirements</td>
<td>20%</td>
<td>30%</td>
</tr>
<tr>
<td>Perform code review</td>
<td>26%</td>
<td>25%</td>
</tr>
<tr>
<td>Estimate automation duration</td>
<td>30%</td>
<td>16%</td>
</tr>
<tr>
<td>Work with an SA to design the automation</td>
<td>30%</td>
<td>12%</td>
</tr>
<tr>
<td>Evaluate the degree of difficulty in a project</td>
<td>20%</td>
<td>22%</td>
</tr>
<tr>
<td>Document implemented solutions</td>
<td>31%</td>
<td>10%</td>
</tr>
<tr>
<td>Create DSD documentation</td>
<td>25%</td>
<td>7%</td>
</tr>
<tr>
<td>Create dashboards</td>
<td>11%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Much of your time is spent building, which you enjoy

But not everything you have to do is as much fun…
In a hot job market, you’re looking (or open to offers)

RPA talent retention is emerging as an issue. Why are you looking? Many of you seek new challenges.

32% are actively looking

I want to become a technical leader and lead an RPA team.

51% are open to the next opportunity

In addition to RPA, I want to add ML and data science to my skillset.
A dip into some differences by segment

A sample size this large gave us the opportunity to see some of the variations within different segments, with interesting results.
Differences by geography: Asia, European Union (EU) and North America (NA)

While general satisfaction among the three geographic regions is comparable, there are some distinct differences in who’s getting hired, how they’re hired, and what they value.

**Hiring patterns are different:** A higher percentage of RPA developers in Asia are women (22% were female, versus 16% in NA and 14% in the EU). Asia is also hiring more new graduates into RPA roles (45% of respondents from Asia said this was their first professional role, versus 28% in the EU and 22% in NA).

**Hiring pathways are different:** More Asia respondents find their jobs through recruiters than any other channel (25%, versus 17% in NA and 14% in the EU). In NA and the EU, internal transfers into RPA roles are most common (35% and 30%, respectively, versus 20% in Asia).

**The type of company and where people work within a company differ by region:** Almost two out of five respondents from NA are working in a consulting firm (38%) versus the EU (29%) and Asia (19%). Of those working in a company, working in a CoE (versus a specific department) is much more prevalent in NA and the EU (59% and 52%, respectively) than in Asia (32%).

**Respondents in Asia are more likely to be certified:** 86% have earned RPA certification, versus 76% in the EU, and just 69% in NA.

**The EU is not as focused on salary and bonuses as other parts of the world:** 83% of respondents from Asia and North America said salary was “very important,” compared with just 70% of respondents from the EU. Same thing with bonuses: 65% of those in Asia and 60% in North America said they were “very important,” versus 42% from the EU.

**More respondents in Asia are seeking a new position—but more plan to stay within RPA:** 43% say they’re “actively looking,” versus 20% for EU and 18% for NA. But respondents in Asia are significantly more likely to be looking for their next RPA position; 90% say they’ll definitely stay in RPA vs. 81% in the EU and 79% in NA.
Differences by geography: Asia, European Union (EU) and North America (NA)

Do you plan to look for a new job in the next 12 months? (by global region)

Retention is far more of an issue in Asia than in other regions.
In our sample, 61% of respondents reported they were working in RPA in-house—that is, building automations for their own company—while 39% were building automations for clients as part of a consulting firm.

Overall satisfaction is about the same between the two groups (96%), but there are some differences in the details: In-house RPA professionals are somewhat more likely to be “highly satisfied” than consultants: 53% versus 47%. However, consultants “strongly agree” that their organizations value their work a bit more (42%) than those working in-house (36%). About 8 out of 10 in both groups agree that they feel challenged by their work.

Consultants are more likely to enjoy the parts of their job that involve planning, evaluating, and designing: For example, 36% enjoy working with business analysts to understand requirements, versus 32% of in-house respondents; 35% enjoy working with solutions architects versus 28% of in-house; and 25% like to evaluate the degree of difficulty in automating a process versus 21% of in-house respondents. In-house employees are more likely to enjoy building and testing automations (86% versus consultants’ 82%).

In-house employees have a more favorable outlook on the RPA industry: More in-house employees (62% versus 53%) “strongly agree” that the “RPA industry has high potential for growth over the next five years.”

Consultants tend to have more RPA experience, certifications, and broader tech skills: 37% of those at consulting firms have more than three years of experience working in RPA, versus 26% of those who are working in-house. 86% of consultants are RPA-certified, versus 75% of in-house employees. Consultants knew more programming languages, with statistically significant differences in SQL (76% vs. 68%); C/C++ (40% vs. 34%); and Java (40% vs. 33%).
The impact of COVID-19

Most say demand for RPA has increased, and that they’re working harder… but there are some notable variations around the world.
COVID-19 is impacting your work in a number of ways

6 out of 10 report increased demand for RPA—but it’s different by region

Impact to job security? Feelings are mixed.

You are working harder through the pandemic.
COVID-19 has increased demand for RPA, but there are distinct differences among global regions

In line with a recent Forrester study that UiPath commissioned, most of you think that COVID-19 is spurring demand for RPA. (But it’s less apparent in the EU.)

Overall, you agree that COVID-19 has increased RPA demand.

<table>
<thead>
<tr>
<th>Region</th>
<th>Increased</th>
<th>Stayed the same</th>
<th>Decreased</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>64%</td>
<td>22%</td>
<td>15%</td>
</tr>
<tr>
<td>Asia</td>
<td>68%</td>
<td>19%</td>
<td>14%</td>
</tr>
<tr>
<td>EU</td>
<td>47%</td>
<td>33%</td>
<td>19%</td>
</tr>
<tr>
<td>North America</td>
<td>78%</td>
<td>10%</td>
<td>12%</td>
</tr>
</tbody>
</table>
Are you working more or less because of COVID-19? And why?

Globally, 55% say you’re working harder—Asia is hardest hit

The main reason is “more projects” – but disrupted work patterns from sequestering also have an impact.

- **Working more**
  - Overall: 55%
  - Asia: 61%
  - EU: 39%
  - North America: 48%

- **No change**
  - Overall: 33%
  - Asia: 25%
  - EU: 48%
  - North America: 40%

- **Working less**
  - Overall: 13%
  - Asia: 14%
  - EU: 13%
  - North America: 12%

57% of those working harder say it’s because of “more projects.”

38% blame disruptions from “working from home.”
How has COVID-19 affected your feelings about your job security?

While overall, a plurality say “no change,” the rest of you are pretty evenly split on whether the pandemic will help or hurt your situation—and the EU is more confident that nothing will change.
Afterword

We want to thank you, the 1,510 RPA professionals from 84 different countries, for giving so generously of your time in completing this survey. You’ve provided us a fascinating portrait of who you are, what you do with your time, and what you need and want from your work life. We hope it’s given you a clearer understanding of where the profession is today and where it’s going.

If you have any questions or comments, please don’t hesitate to get in touch with us:

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Director of Product Marketing, Community
teresa.wu@uipath.com

About UiPath

UiPath has a vision to deliver A Robot for Every Person, one where companies enable every employee to use, create, and benefit from the transformative power of automation to liberate the boundless potential of people. Only UiPath offers an end-to-end platform for hyperautomation, combining the leading Robotic Process Automation (RPA) solution with a full suite of capabilities that enable every organization to scale digital business operations at unprecedented speed. The company has already automated millions of repetitive tasks for over 65% of the Fortune 500 and 8 of the Fortune 10.

Named a 2020 CNBC Disruptor 50 company, UiPath was recognized as the fastest growing technology company in the Americas according to FT Americas’ Fastest Growing Companies 2020 and named the top company on Deloitte’s 2019 Technology Fast 500, a ranking of the fastest growing public and private technology companies in North America.