

Beyond the Code: Evolving from Clinical Programmer to Strategic Partner in Clinical Trials

Anastasiia Khoba

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Biography

Anastasiia Khoba serves as an Associate Director at Intego Group and has more than 10 years of experience in clinical trials. A native of Ukraine, Anastasiia holds a Master's degree in Applied Mathematics from Karazin Kharkiv National University. While currently serving in a managerial role, Anastasiia still enjoys tackling complex programming challenges, combining leadership with technical expertise. She is delighted to be joining PhUSE for the third time, continuing to share experiences and learn from this inspiring community.



Anastasiia Khoba
Associate Director, Principal Statistical Programmer



Historically: programmers focused on coding and deliverables



Reality: increasing complexity of trials, regulatory demands, digital transformation, and data-driven decisions.



Now: Programmers are becoming strategic partners shaping study design and innovation.

From Technician to Strategic Contributor

- ❖ Broader expectations: efficiency, compliance, readiness.
- ❖ “Need for speed” – automation and standardization for faster insights.
- ❖ Programmers involved early in protocol and CRF design.
- ❖ Collaboration with other functions improves validation and reproducibility.

Building a Strategic Mindset



Advice 1

- Be open to challenges – think like a problem solver and partner in science.



Advice 2

- Learn the full trial process, from data collection to submission.

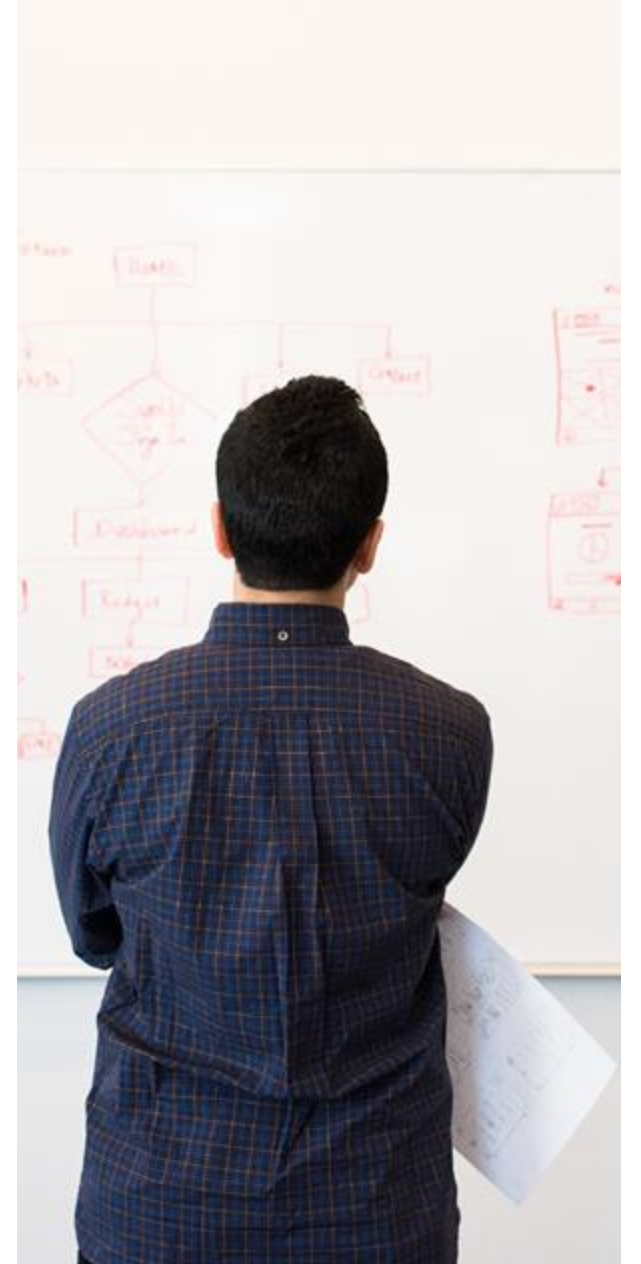


Advice 3

- Be proactive – suggest improvements, share lessons, take initiative.

Technology and Innovation Leadership

- ❖ Beyond SAS: R, Python, metadata-driven automation.
- ❖ Dashboards (Shiny, Spotfire) enable real-time insights.
- ❖ AI/ML applications – data quality, enrolment prediction, automation.
- ❖ Innovation is expected, not optional.



Staying Ahead Technologically



Advice 4

- Keep learning and stay curious – explore new tools, even in legacy projects.



Advice 5

- Learn how AI and data science are changing the field.



Advice 6

- Join professional networks like PhUSE to share and learn.

❖ Strong communication and collaboration skills are key

❖ Understand the business and scientific context

❖ Technical ability alone is not enough

Soft Skills Matter

❖ Problem-solving mindset & Strategic Thinking

❖ Being able to translate technical details builds trust and credibility

Developing Strategic Influence



Advice 7

- Communicate simply and clearly with non-technical colleagues



Advice 8

- Strengthen problem-solving by analysing root causes, not symptoms.



Advice 9

- Act as a bridge between data, science, and operations to connect insights.

Career Evolution and Growth Paths

Traditional path:

Programmer →
Senior Programmer →
Lead Programmer

New roles:

- Data Strategy Lead
- Programming Innovation Lead
- Clinical Data Scientist

Key of success:

Combination of technical depth with
leadership and cross-functional
understanding

Growing Toward Leadership



Advice 10

- Deepen understanding of CDISC and regulatory guidance.



Advice 11

- Strengthen therapeutic area knowledge to anticipate needs.



Advice 12

- Develop leadership through mentoring, managing small projects, and guiding others.

Future Outlook

- ❖ Automation and AI will empower, not replace, programmers.
- ❖ Data-centric trials and continuous data flows will expand.
- ❖ Programmers will remain central to consistency and quality.



Advice 13

Stay adaptable. Technology will keep changing, but the ability to think critically, communicate clearly, and collaborate effectively will always matter!

Conclusions

- ❖ No longer behind the scenes — the opportunities are now in your hands.
- ❖ Combine innovation with real-world experience.
- ❖ The future belongs to programmers who learn, collaborate, and innovate.
- ❖ Together, as a global network of professionals, we can continue to move beyond the code.



Thank you for attending

Contact

Anastasiia.khoba@intego-group.com

www.intego-group.com

