



FOUNDATIONS AND APPLICATIONS



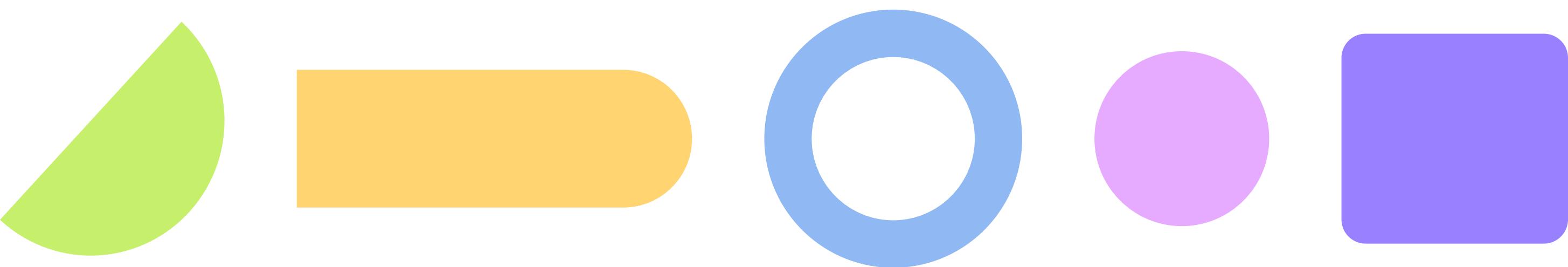
Artificial Intelligence: Foundations and Applications

[Course Syllabus](#)

Course by **Cosmos Academy**
Instructed by **Israel Ufumaka**

Content

1. About Course
2. How to get started with live classes
3. Course content
4. About instructor
5. Register for mentorship



About Course

This foundational course introduces students to the world of Artificial Intelligence (AI), its concepts, techniques, and applications across various industries. Participants will explore the history and evolution of AI, key subfields such as machine learning, natural language processing, and computer vision, as well as real-world applications like recommendation systems, chatbots, and autonomous systems.

Pre-requisite

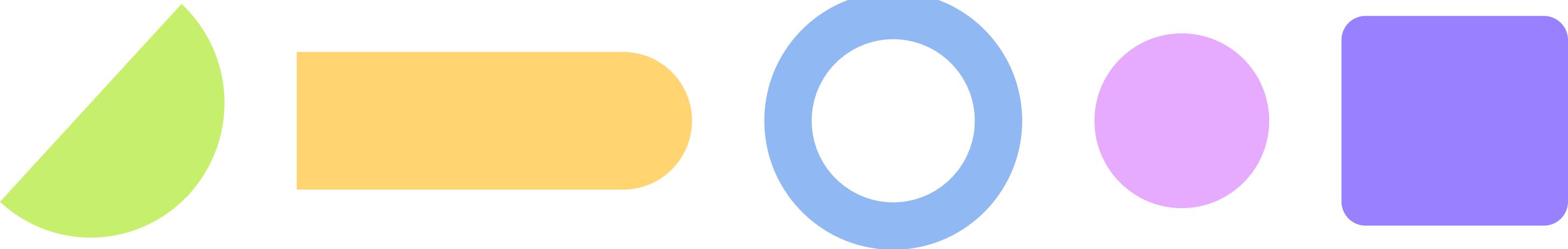
No prior AI knowledge required; basic computer literacy is sufficient.

Recommended Prior Courses: Python for Beginners (optional).

Technical Requirements: 8GB RAM and 64-bit OS, Stable internet connection

Learning Outcome

- Understand the foundational concepts of AI and its subfields.
- Build simple machine learning and deep learning models using Python.
- Evaluate the ethical considerations of AI systems in society.
- Preprocess and analyze datasets for AI applications.
- Develop basic natural language processing tools like sentiment analysis.



How to Get Started

1. Check Your Welcome Email

- Open the Welcome Email we sent you after your enrollment.
- Find and click the “Join Now” link inside the email.

2. Join the General Community Group

- The link will take you to our general community group.

3. Introduce Yourself

- Once inside the group, please share:
 - Your full name
 - A little bit about yourself
 - The program/course you enrolled for

4. Receive a Warm Welcome

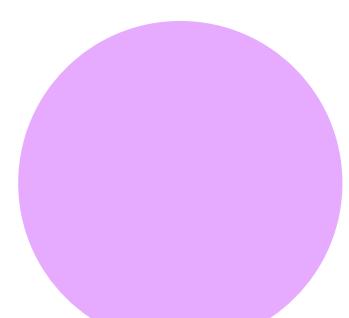
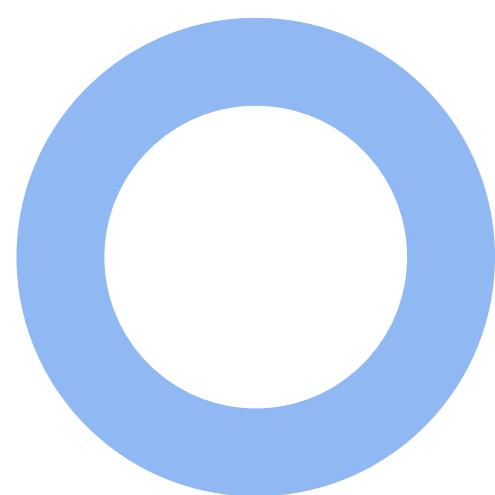
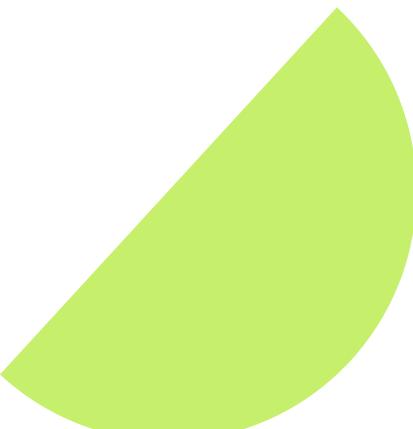
- Our team and other members will welcome you to the community!

5. Get Added to Your Program Group

- After your introduction, our admin will add you to the specific group for your program.

6. Stay Informed

- Inside your program group, you’ll receive:
 - Your class start dates
 - Details about your instructor(s)
 - Important updates and announcements

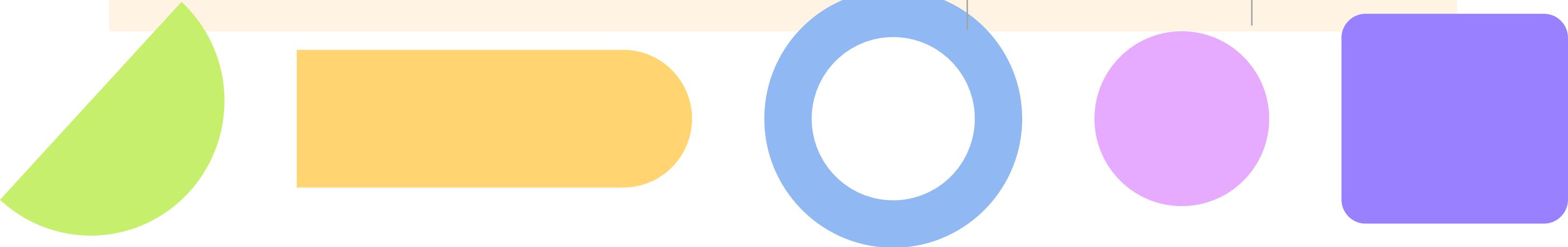


Course Content

Course Week 1	Date	Time
Mind Modulation For Innovation by Prof. Conrad Omonhinmin	19th Aug, 2025	7PM - 9PM
Q&A What is AI? History and Evolution	21st Aug, 2025	7PM - 9PM
Q&A Clarifying AI subfields and concepts	23rd Aug, 2025	10AM - 12PM

Course Week 2	Date	Time
Q&A Key AI Subfields and Tools and Data for AI: Types, Sources, and Preprocessing	28th Aug, 2025	7PM - 9PM
Q&A Clarification of mathematical concepts and data preprocessing techniques	30th Aug, 2025	10AM - 12PM

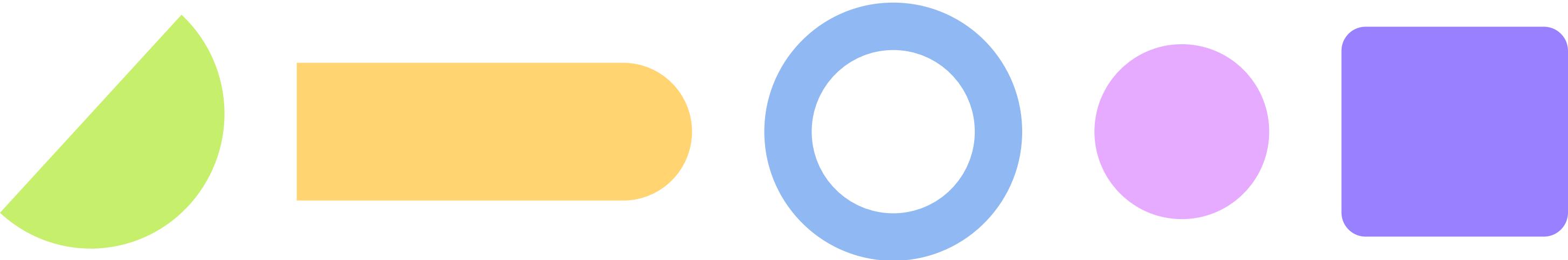
Course Week 3	Date	Time
Q&A Mathematical Foundations: Linear Algebra and Probability Basics Introduction to Machine Learning: Types and Applications	4th Sep, 2025	7PM - 9PM
Q&A Troubleshooting common issues in ML models.	6th Sep, 2025	10AM - 12PM



Course Week 4	Date	Time
Q&A Hands-On: Building Your First Machine Learning Model, Neural Networks: Structure and Functionality	11th Sep, 2025	7PM - 9PM
Q&A Neural Networks: Structure and Functionality	13th Sep, 2025	10AM - 12PM

Course Week 5	Date	Time
Q&A Hands-On: Building Your First Neural Network Introduction to NLP: Concepts and Applications	18th Sep, 2025	7PM - 9PM
Q&A NLP troubleshooting and advanced tokenization techniques	20th Sep, 2025	10AM - 12PM

Course Week 6	Date	Time
Q&A Hands-On: Building a Sentiment Analysis Tool Ethics in AI: Bias, Fairness, and Privacy	25th Sep, 2025	7PM - 9PM
Q&A Ethical dilemmas and the future roles of AI and The Future of AI: Trends and Innovations	27th Sep, 2025	10AM - 12PM

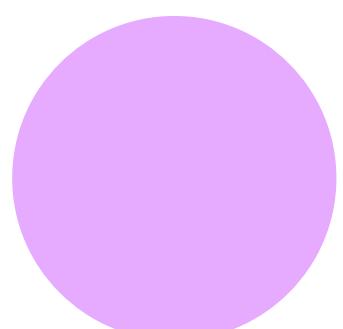
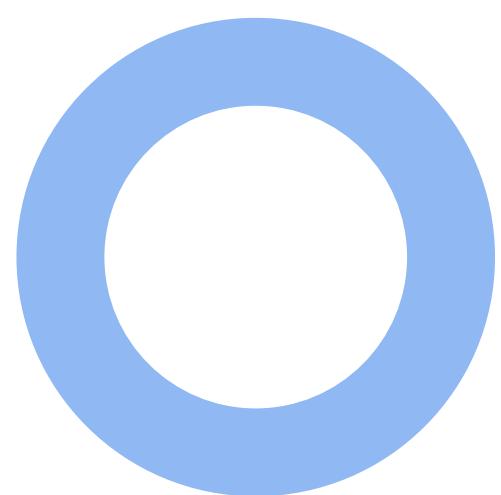
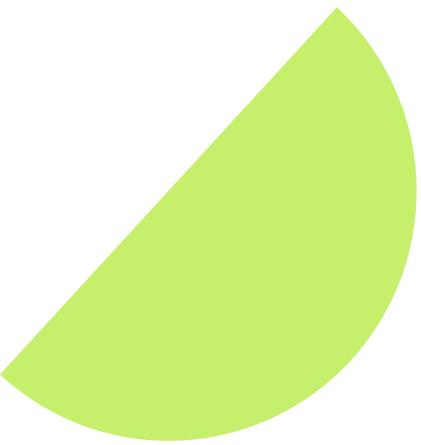


About Instructor

Ufumaka Isreal is a visionary PhD researcher in Computer Science at the University of West London, where he pioneers AI solutions for echocardiographic image quality assessment. As a key member of the IntSaV research group, he contributes to transformative projects like the UNITY Biobank, building one of the UK's largest open-access repositories of cardiac ultrasound images to advance healthcare diagnostics.



Beyond his research, Ufumaka has led AI teams, developed predictive models, and explored emerging technologies from deep learning to blockchain and Web3. He is dedicated to pushing the boundaries of technology and inspiring others through innovative, impactful work.

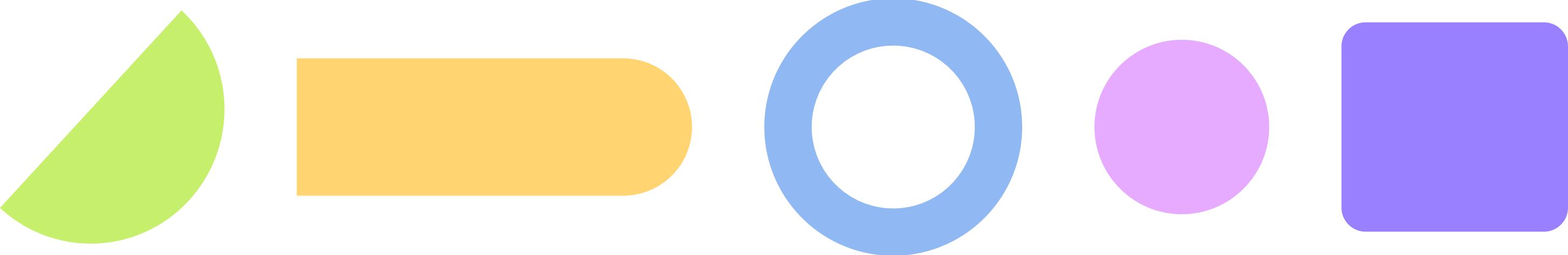


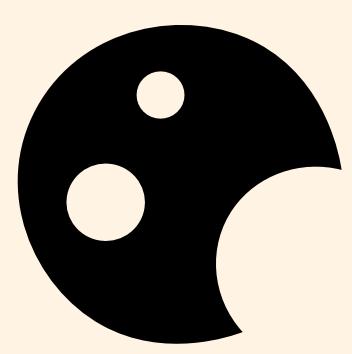
Register For Mentorship

Get direct access to experienced mentors who will guide you through your learning journey, provide career advice, and help you navigate the tech industry.

1. Learners can join our paid mentorship program led by our expert instructors.
2. Details about costs and available schedules will be provided once you request mentorship.
3. To request mentorship:
 - Post a request in your program group.
 - Our admin team will share all necessary details and next steps.
4. Mentorship sessions can be scheduled weekly or monthly, based on your preference.

For any questions or further information, please contact us at info@cosmosacademy.org.





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