Brief Introduction to Computer Science @ MVNU

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What is computer science?

- Principles
- Theories
- Algorithms
- Practices

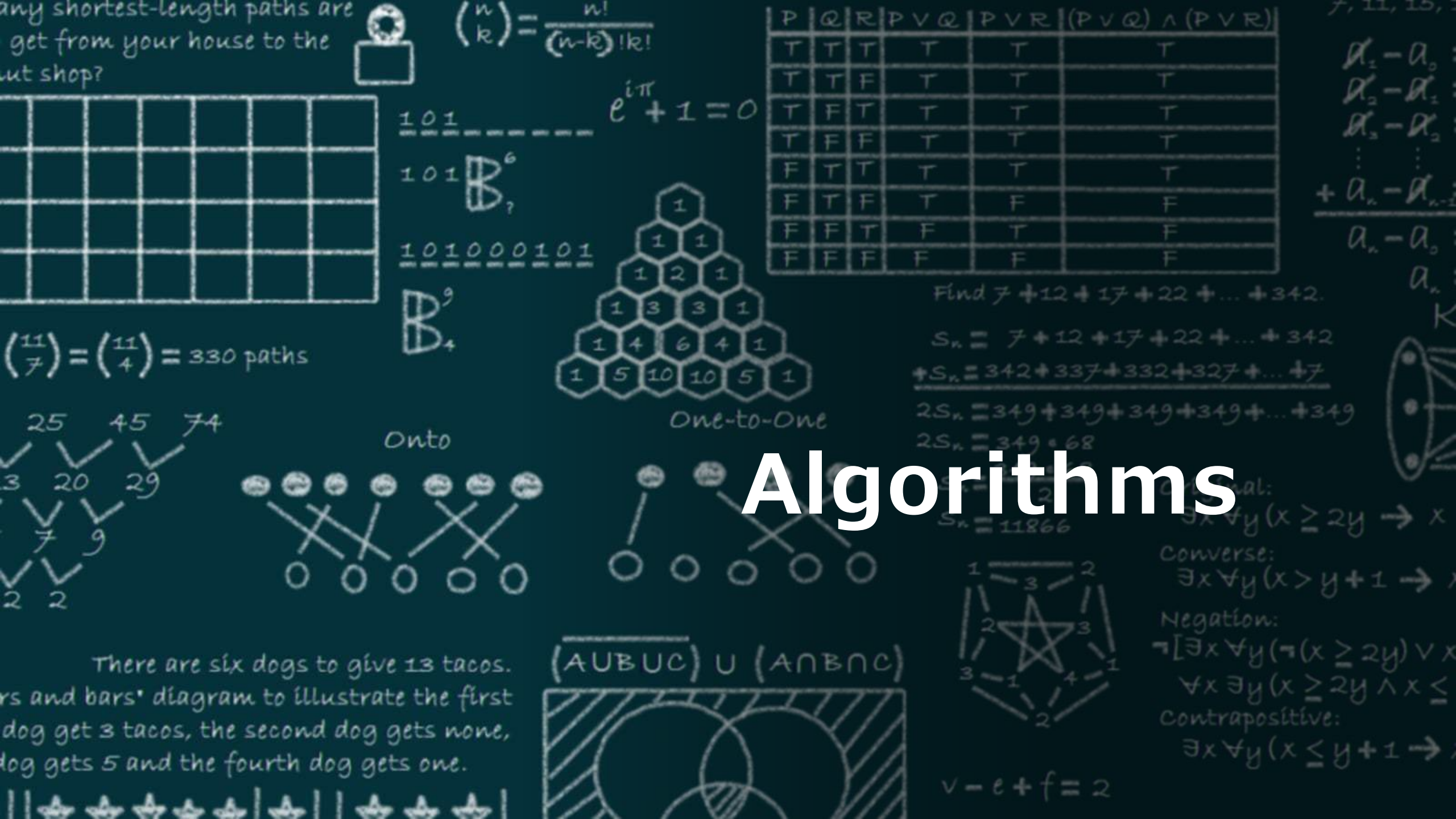
- Design
- Development
- Implementation

Computer Systems

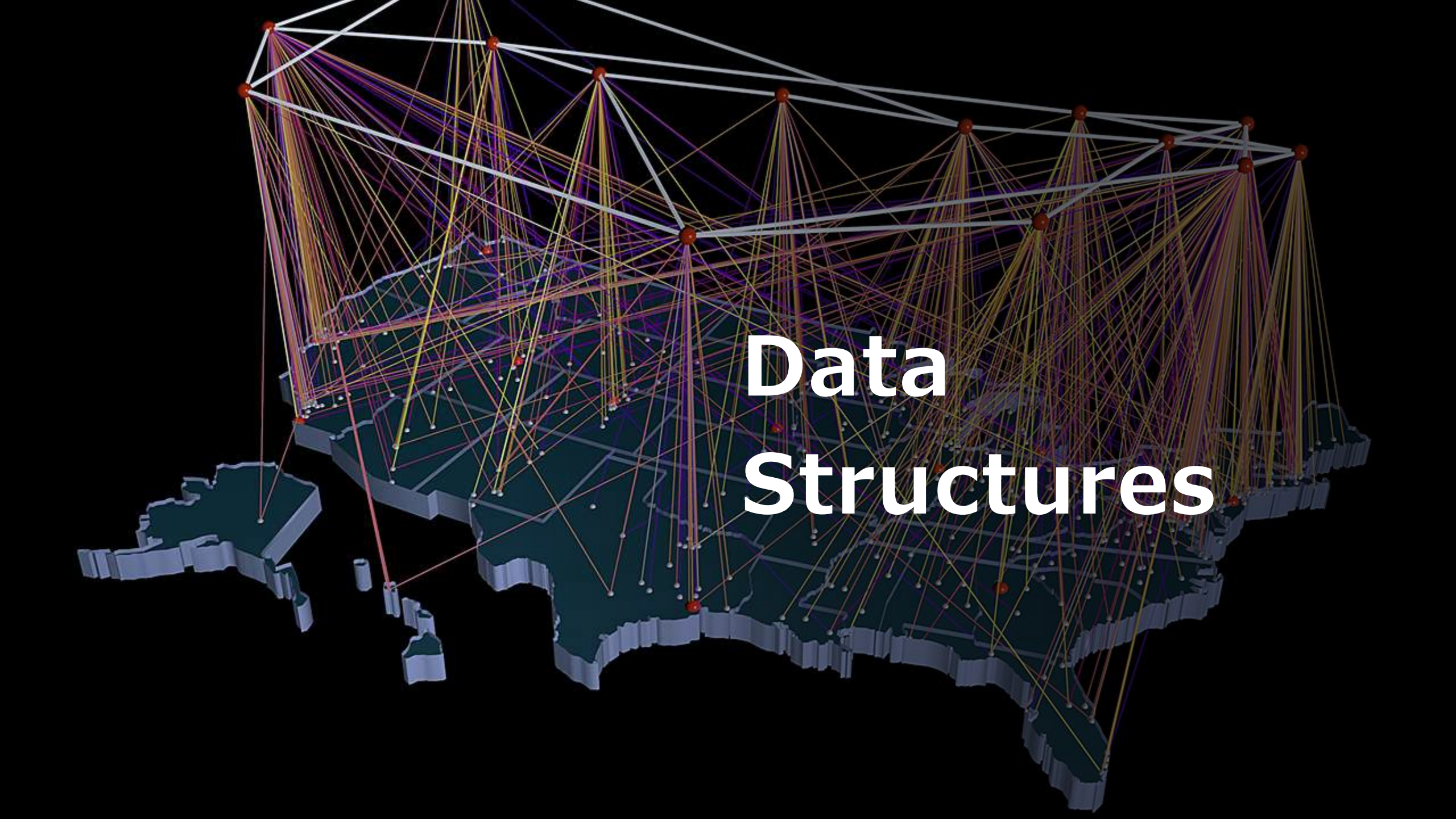
Practically …

- How do computers work?
- How does the software on a computer work?
- How can computers be used to solve problems?
- How can computers process and change information quickly and accurately?

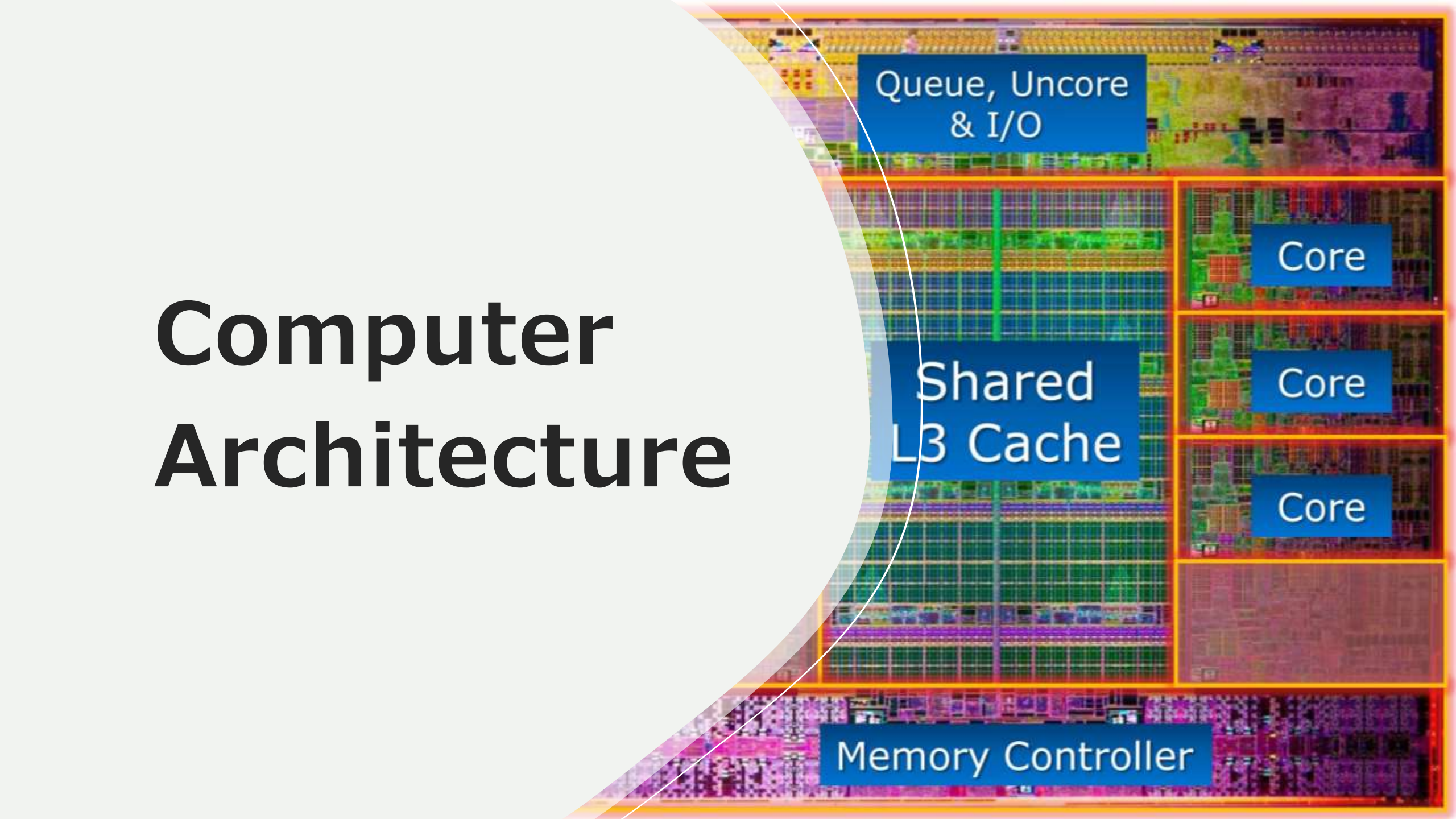
Programming Languages


any shortest-length paths are
get from your house to the
ut shop?
$\binom{n}{k} = \frac{n!}{(n-k)!k!}$
$e^{i\pi} + 1 = 0$
101
101
1010001101
$\binom{11}{7} = \binom{11}{4} = 330$ paths
P Q R P∨Q P∨R (P∨Q)∧(P∨R)
T T T T T T
T T F T T T
T F T T T T
T F F T T T
F T T T T T
F T F T F F
F F T F T F
F F F F F F
Find 7 + 12 + 17 + 22 + ... + 342.
$S_n = 7 + 12 + 17 + 22 + \ldots + 342$
$+S_n = 342 + 337 + 332 + 327 + \ldots + 7$
$2S_n = 349 + 349 + 349 + 349 + \ldots + 349$
$2S_n = 349 \cdot 68$
$S_n = 11866$
25 45 74
3 20 29
7 9
2 2
Onto
One-to-One
Converse:
Negation:
Contrapositive:
There are six dogs to give 13 tacos.
rs and bars' diagram to illustrate the first
dog get 3 tacos, the second dog gets none,
dog gets 5 and the fourth dog gets one.
(A∪B∪C) ∪ (A∩B∩C)
v − e + f = 2

Algorithms


Data
Structures

Computer Architecture



Operating Systems

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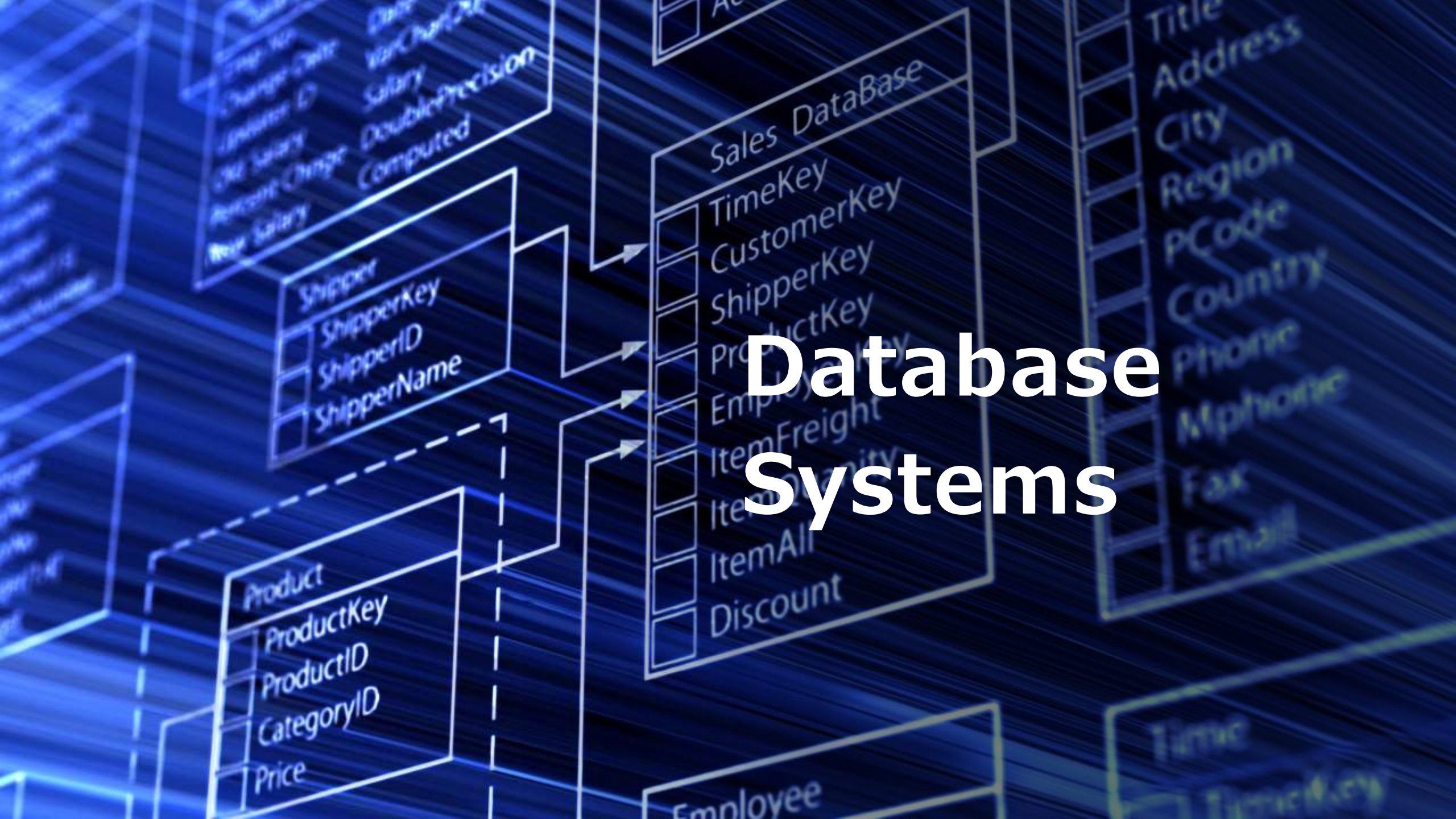
Software
Development

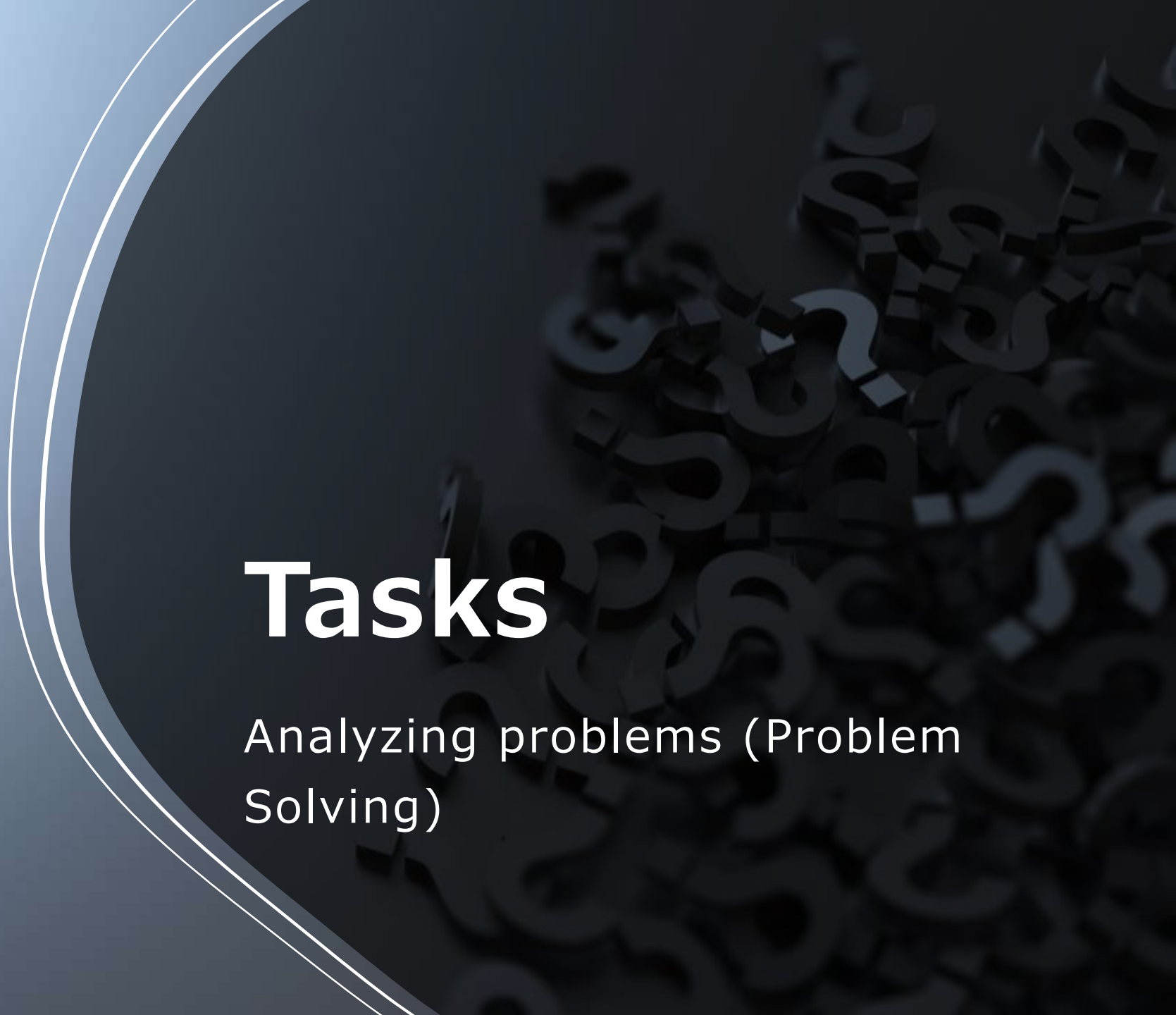
Artificial Intelligence



Database Systems

Networks

HCI and more



Tasks

Analyzing problems (Problem Solving)

Tasks

Designing Efficient and Reliable Solutions

Tasks

Implementing solutions using programming languages and tools

Industries

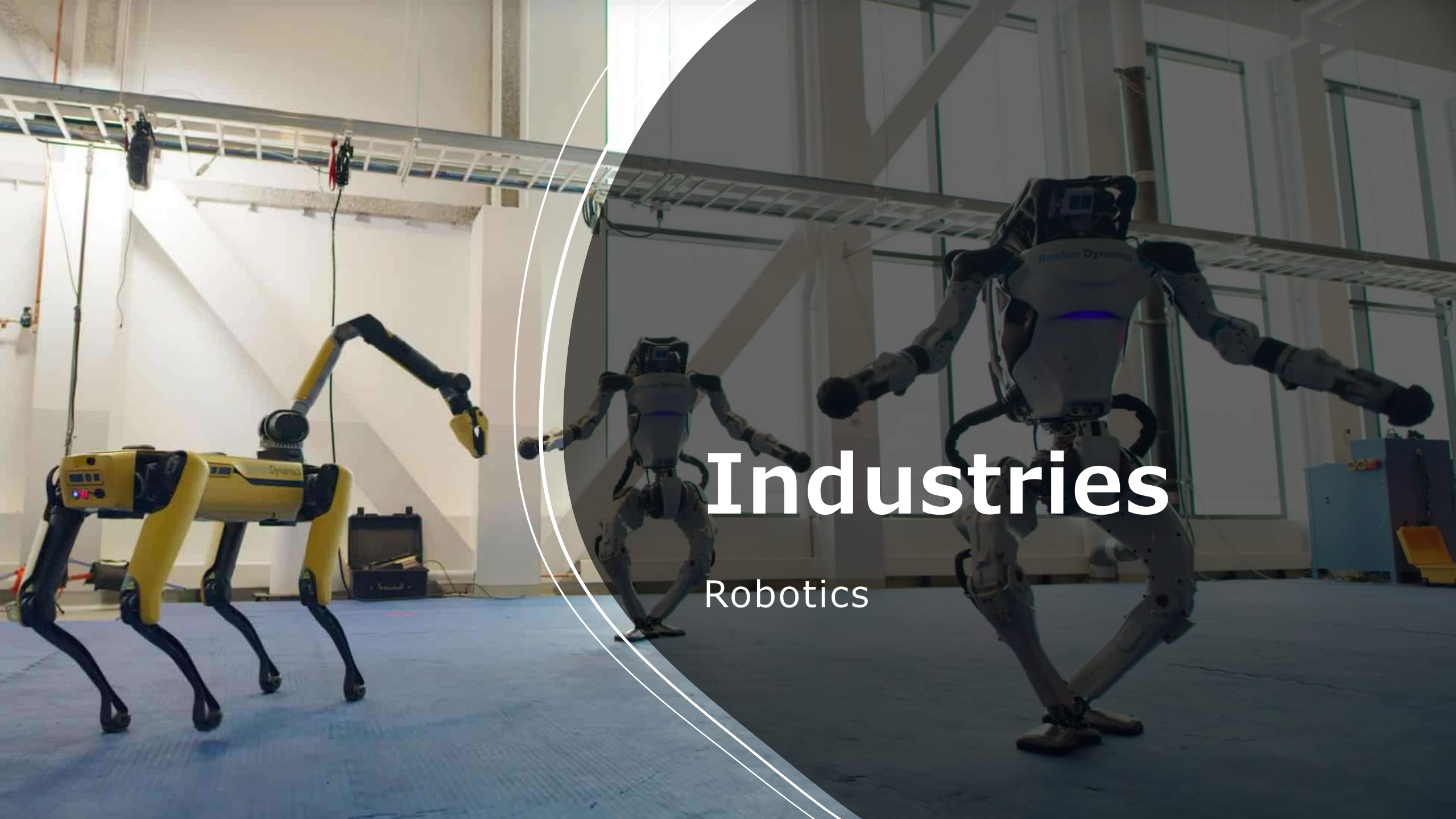
Software Development

Industries

Cybersecurity

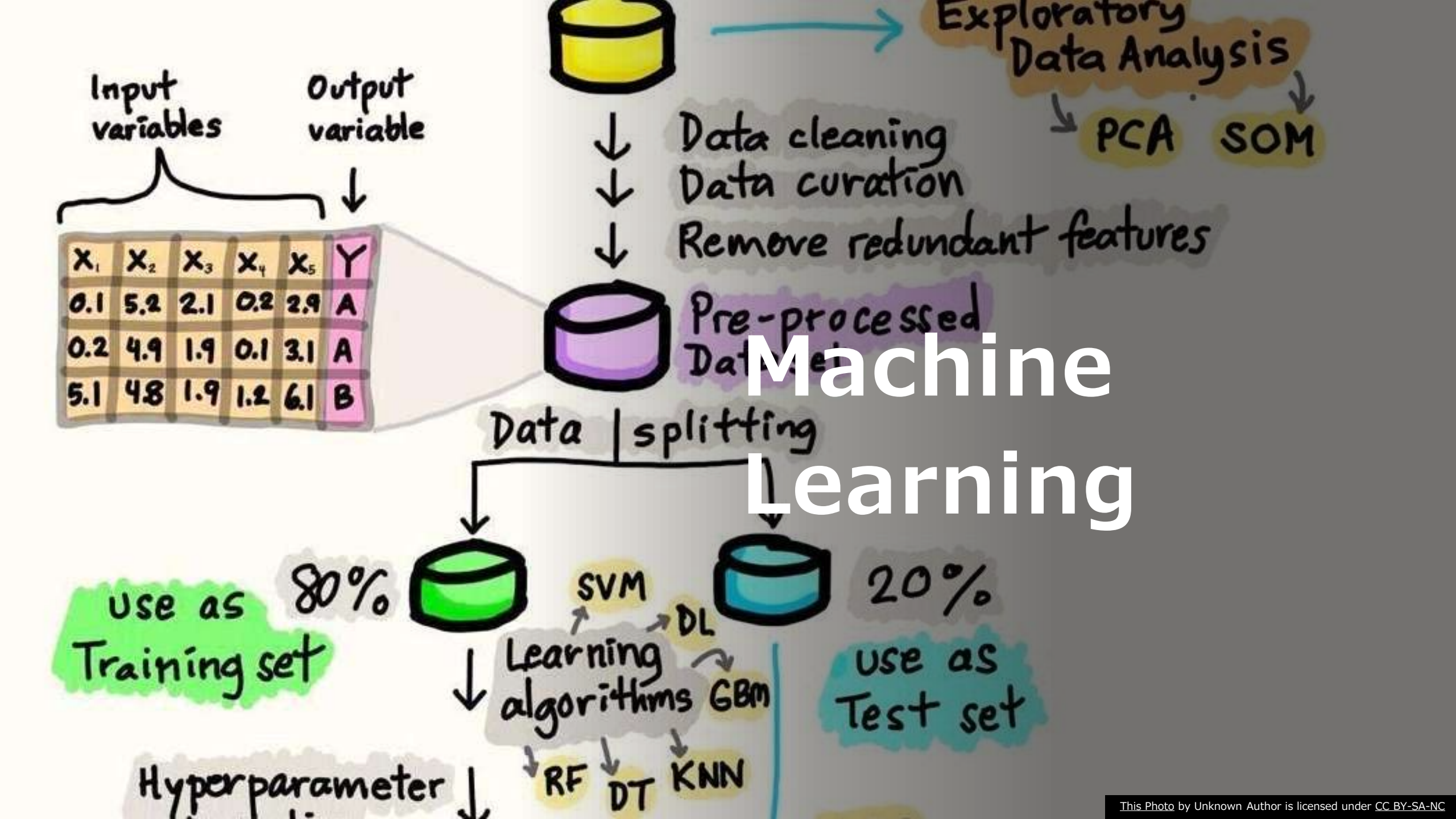
Industries

Data analysis



Industries

Robotics



X_1	X_2	X_3	X_4	X_5	Y
0.1	5.2	2.1	0.2	2.9	A
0.2	4.9	1.9	0.1	3.1	A
5.1	4.8	1.9	1.2	6.1	B

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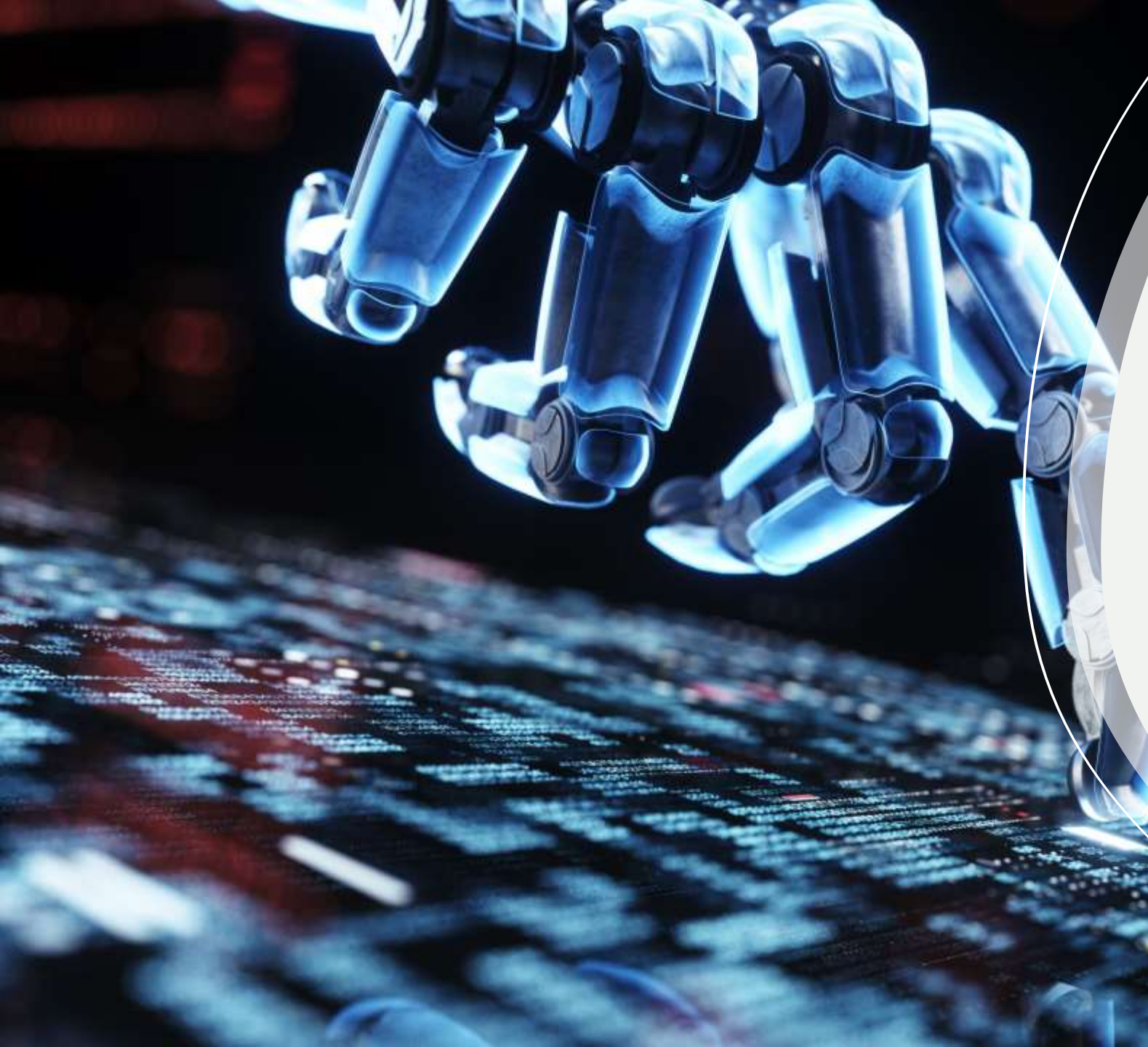


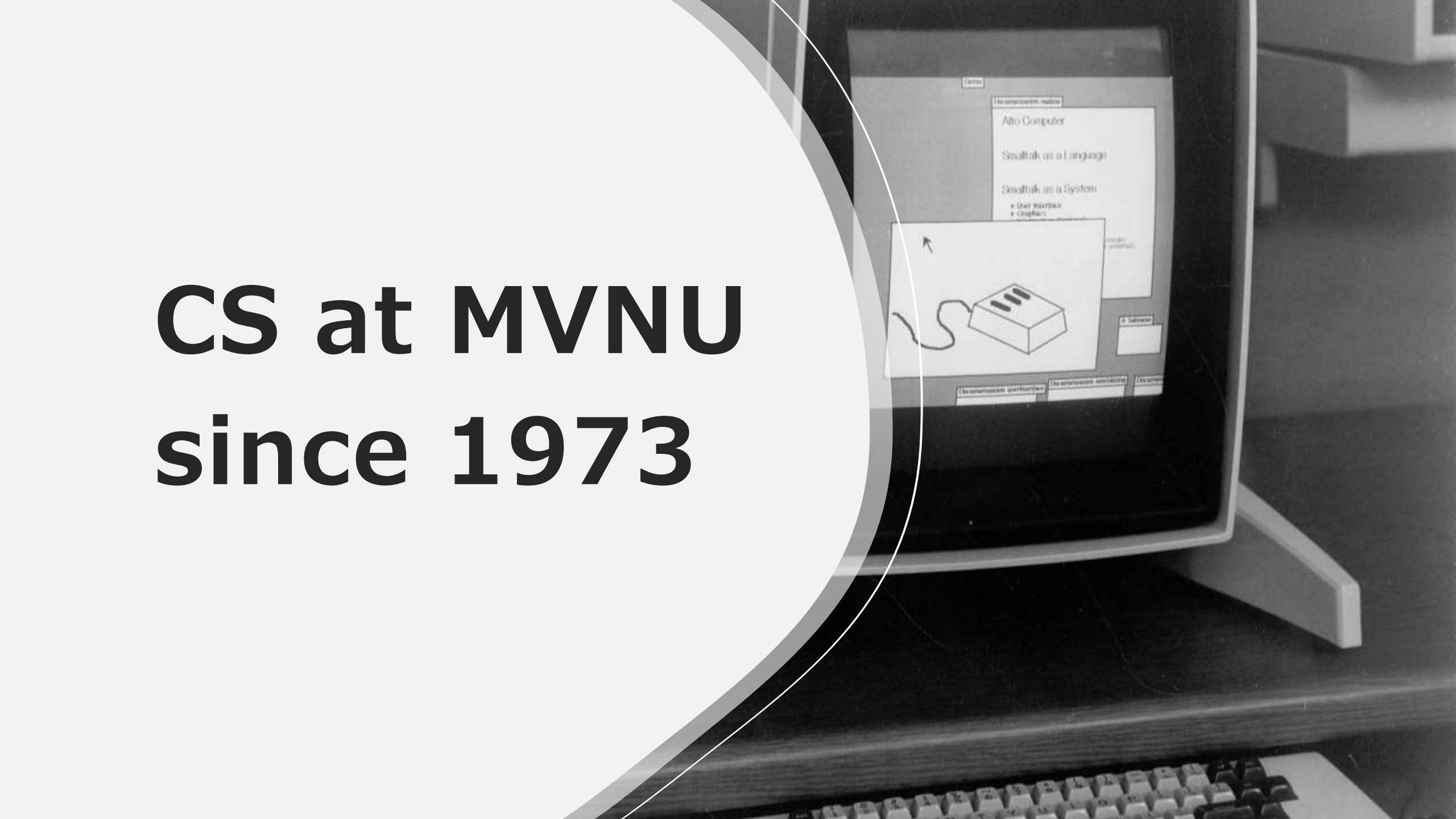
To Summarize, CS has:

A vital role in the modern world

Is driving tech

Is enabling innovations

CS at MVNU since 1973



Three CS Programs at MVNU

Computer Science with Mathematics Minor

- Software Engineer
- Software Developer
- Software Analyst / Tester
- Web/App/Database Developer

Three CS Programs at MVNU

Computer Science and pick your own minor program of study (ministry, business, accounting, exercise science, etc.)

- Software Engineer
- Software Developer
- Software Analyst / Tester
- Web/App/Database Developer

Three CS Programs at MVNU

Computer Systems and Network Engineering (CSNE) for Information Technology Professionals

Pick your own minor program of study

- Network Engineer
- IT Networking Specialist
- IT System Administrator
- Cybersecurity Analyst or DevOps Engineer

Computer Engineering

MVNU also has this related program of study

The best of Electrical Engineering (Digital Focus) and Computer Science

Who does well in CS?

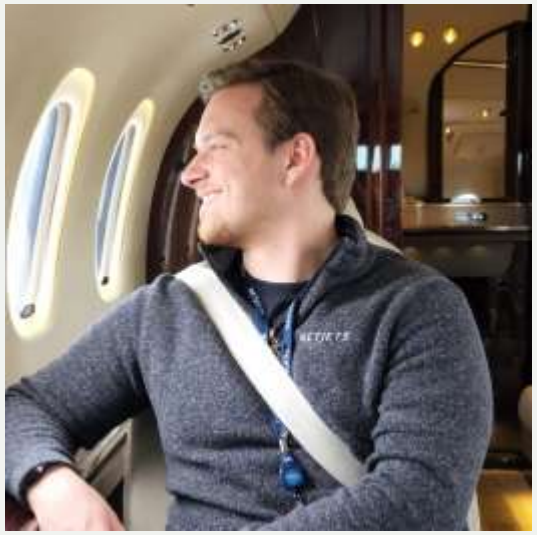
- Likes to solve problems
- Can handle multiple layers of abstraction
- Build models to explain how things work

Glassdoor Best Jobs in 2022

1. Enterprise Architect ($145k), up from #4
2. Full Stack Engineer ($101k)
3. Data Scientist ($120k) – still take some CS courses
4. Devops Engineer (up from #5, $120k)
5. Strategy Manager ($140k)
6. Machine Learning Engineer ($130k)
7. Data Engineer ($113k, usually needs Master's)
8. Software Engineer (up from #9, $116k)
9. Java Engineer (big drop from #1, $107k)
11. Back End Engineer ($112k)
12. Cloud Engineer ($119k)

Who’s teaches CS?

Recent MVNU CS Graduates



Recent MVNU CS Graduates

MOUNT VERNON NAZARENE UNIVERSITY

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Computer Science Area of the Mathematics & Computer Science Departm

Contact Us

- Discord
- Email

Computer Science Majors and Minor

- Major in Computer Science, Bachelor of Arts (BA)
- Major in Computer Science, Bachelor of Science (BS)
- Major in Computer Systems and Network Engineering, Bachelor of Science (BS)

- Minor in Computer Science
- Additional Information about the MCS Department
- Additional Information about the CS Programs
- Additional Information about the Math Programs

Related Programs

- Computer Engineering (New) Announcement and Program

Faculty

- Dr. Robert Kasper, Professor Emeritus of Computer Science
- Dr. Michael Robbeloth, Assistant Professor of Computer Science
- Dr. Deborah Wilson, Assistant Professor of Computer Science

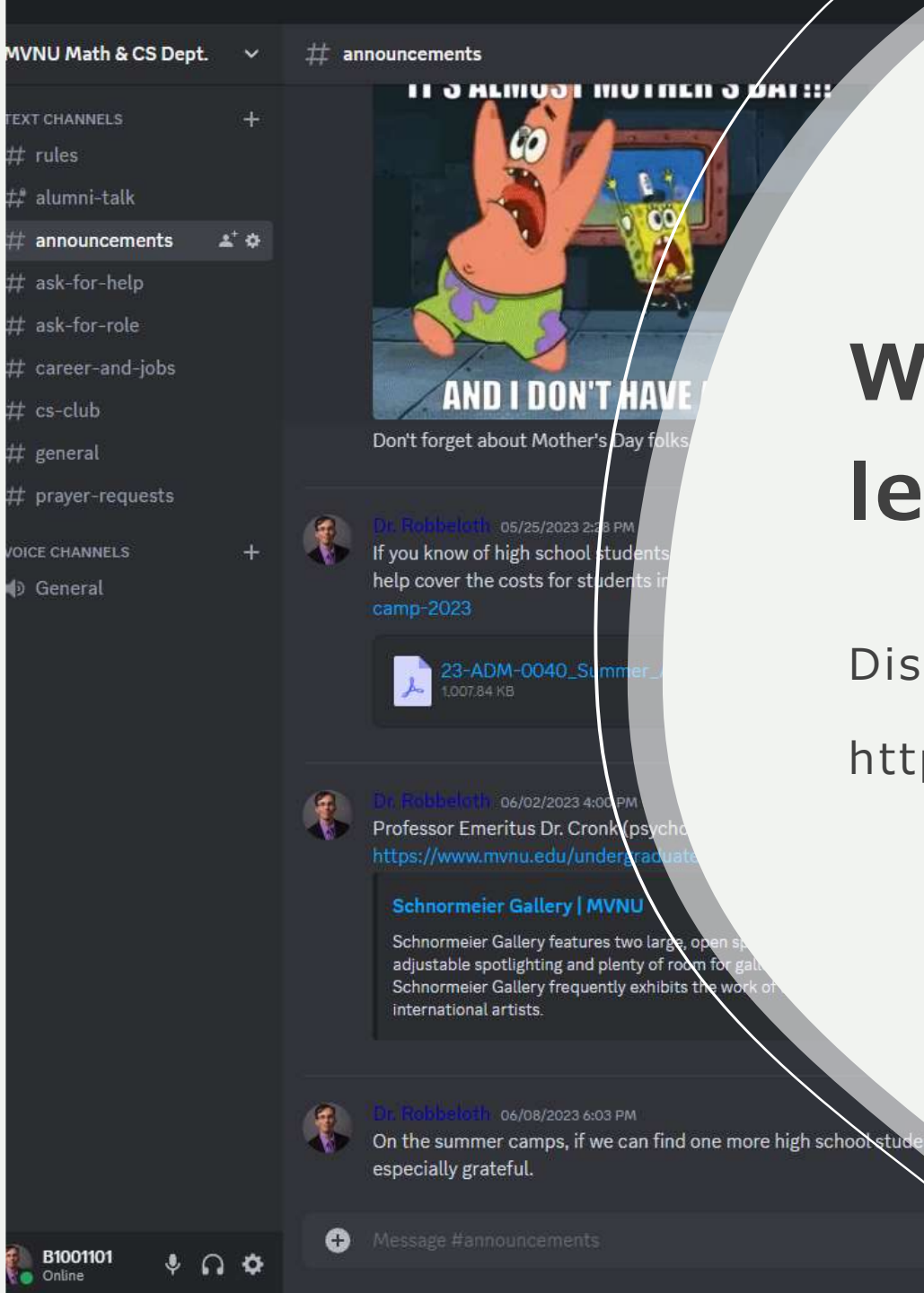
Checklists for Academic Advising

Where can you learn more?

Website:

https://cs.mvnu.edu

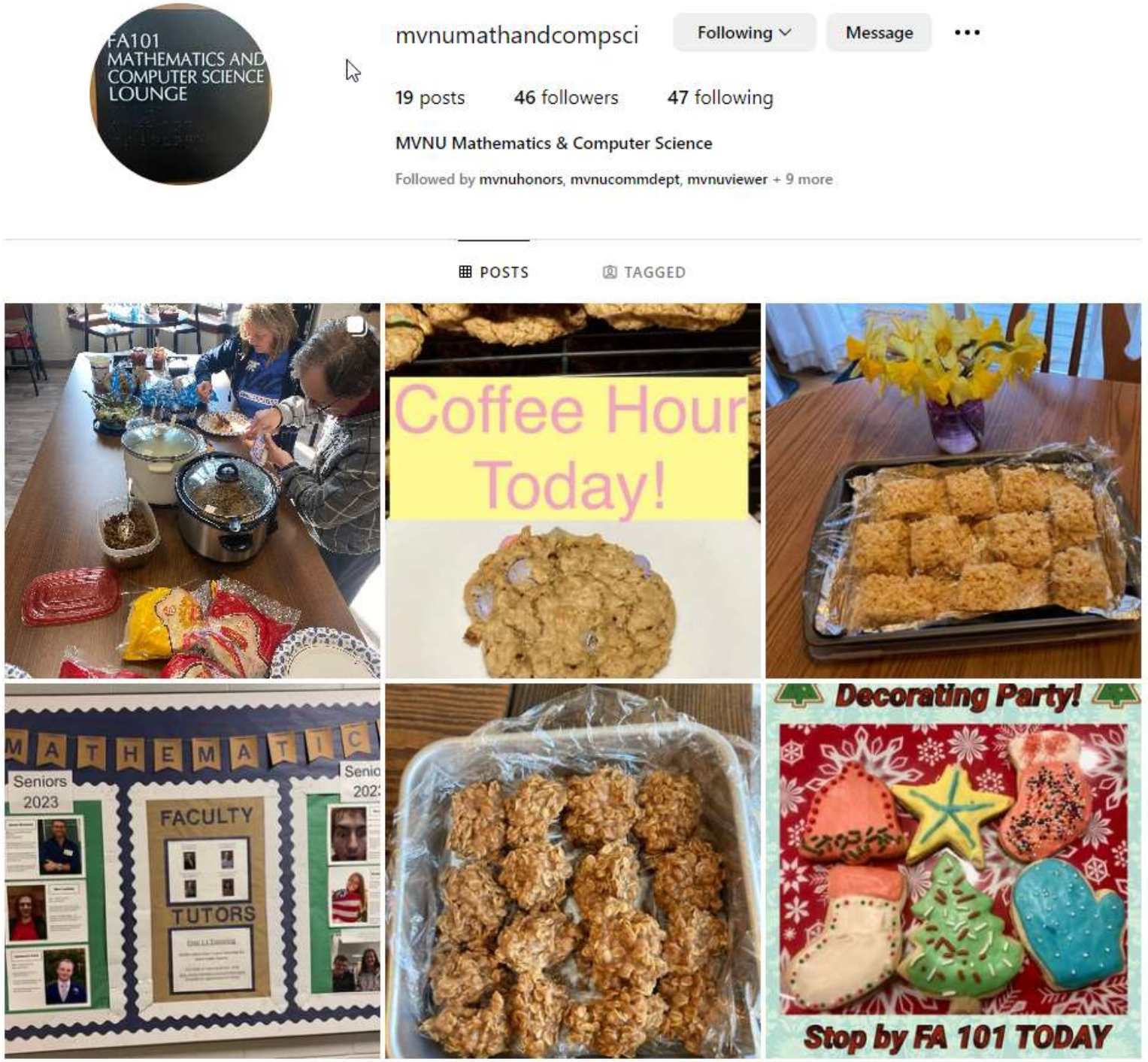
SCAN ME



Where can you learn more?

Discord

https://t.co/6qW5cPyrOd



Instagram

@mvnumathandcompsci

Questions?