

Data Science, Machine Learning, Artificial Intelligence Project Guidelines and SYLLABUS

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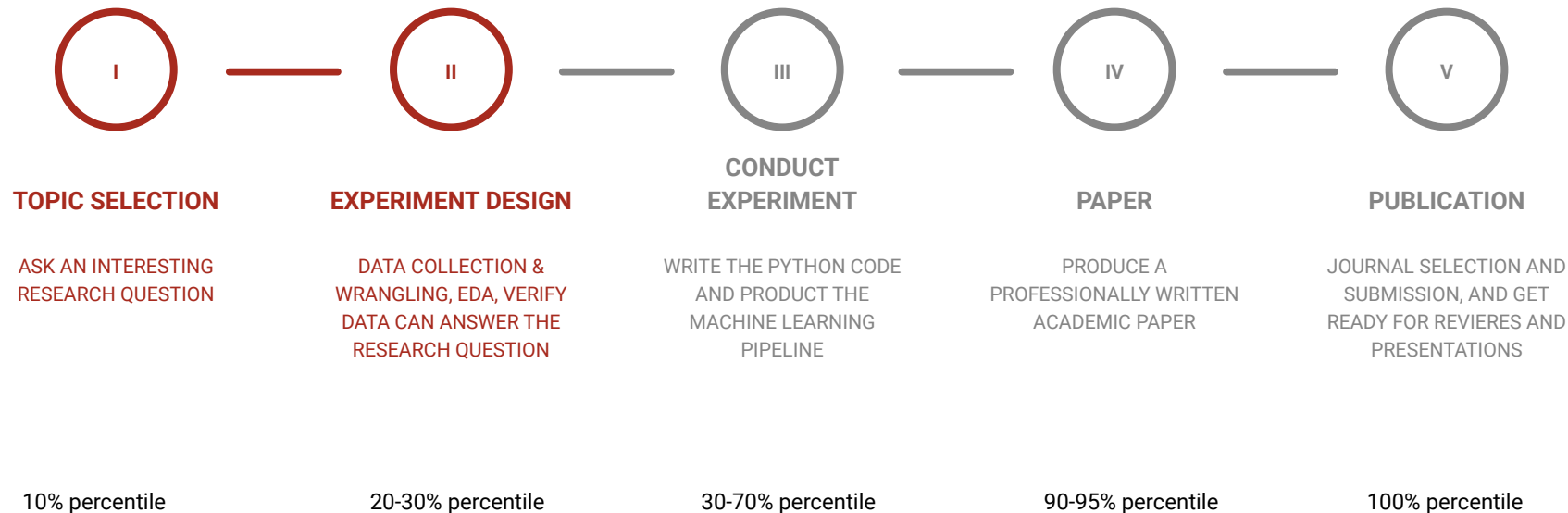
PERSONAL: <https://www.y-yin.io/>

PROGRAM: <https://www.future-minds.io/>



CONTENT

- AI RESEARCH MILESTONE
- STEP BY STEP BREAK-DOWN
- TECH PLATFORM AND DATABASE MANAGEMENT



AI RESEARCH MILESTONE



ELEMENT I

ELEMENT II

ELEMENT III



TOPIC SELECTION

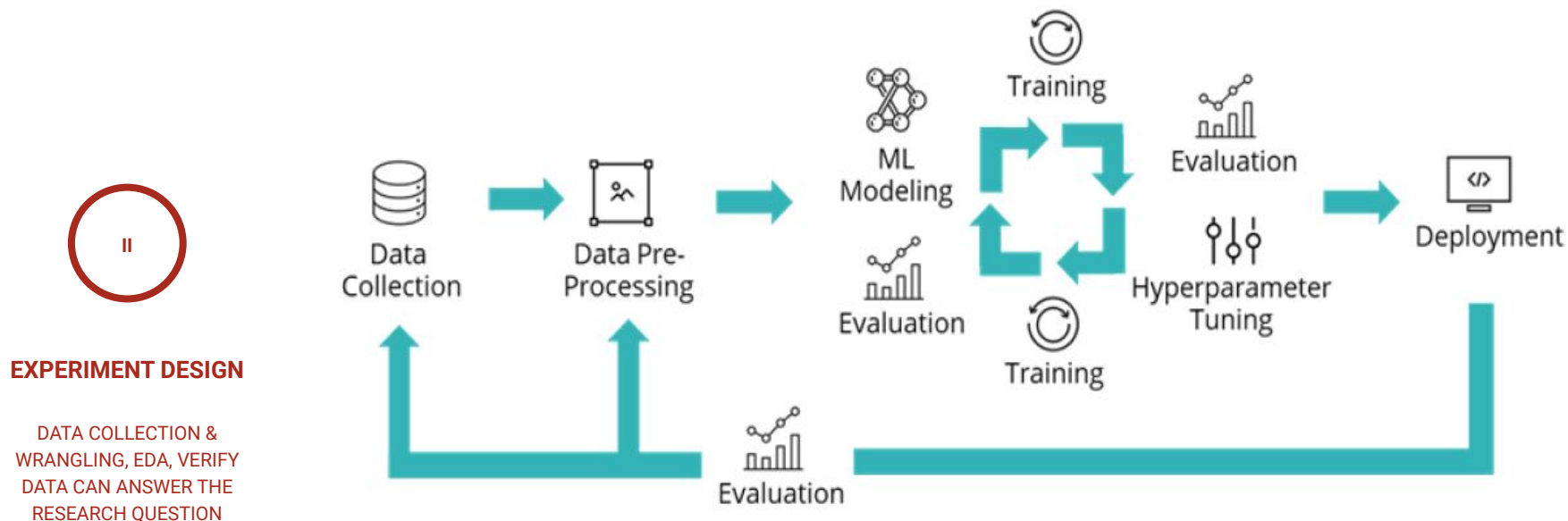
ASK AN INTERESTING
RESEARCH QUESTION

YOUR RESEARCH
TOPIC HELPS THE
WORLD AND IT
ANSWERS
QUESTIONS THAT
CONTRIBUTE TO
THE SOCIETY.

YOUR RESEARCH
TOPIC REQUIRES
CERTAIN SKILLS
AND TECHNIQUES
THAT CAN
ADVANCE YOUR
CAREER.

YOUR RESEARCH
IS EASY TO BE
ACHIEVED. EX:
YOUR RESEARCH
TOPIC CAN BE
DONE WITHIN 10
WEEKS.

TOPIC SELECTION



Source: [Data-Centric AI](#)

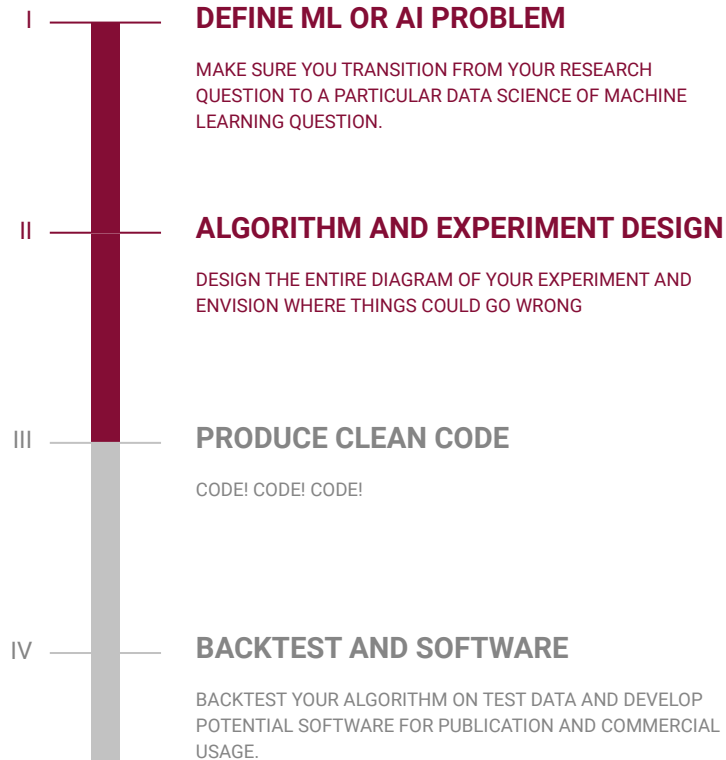
EXPERIMENT DESIGN

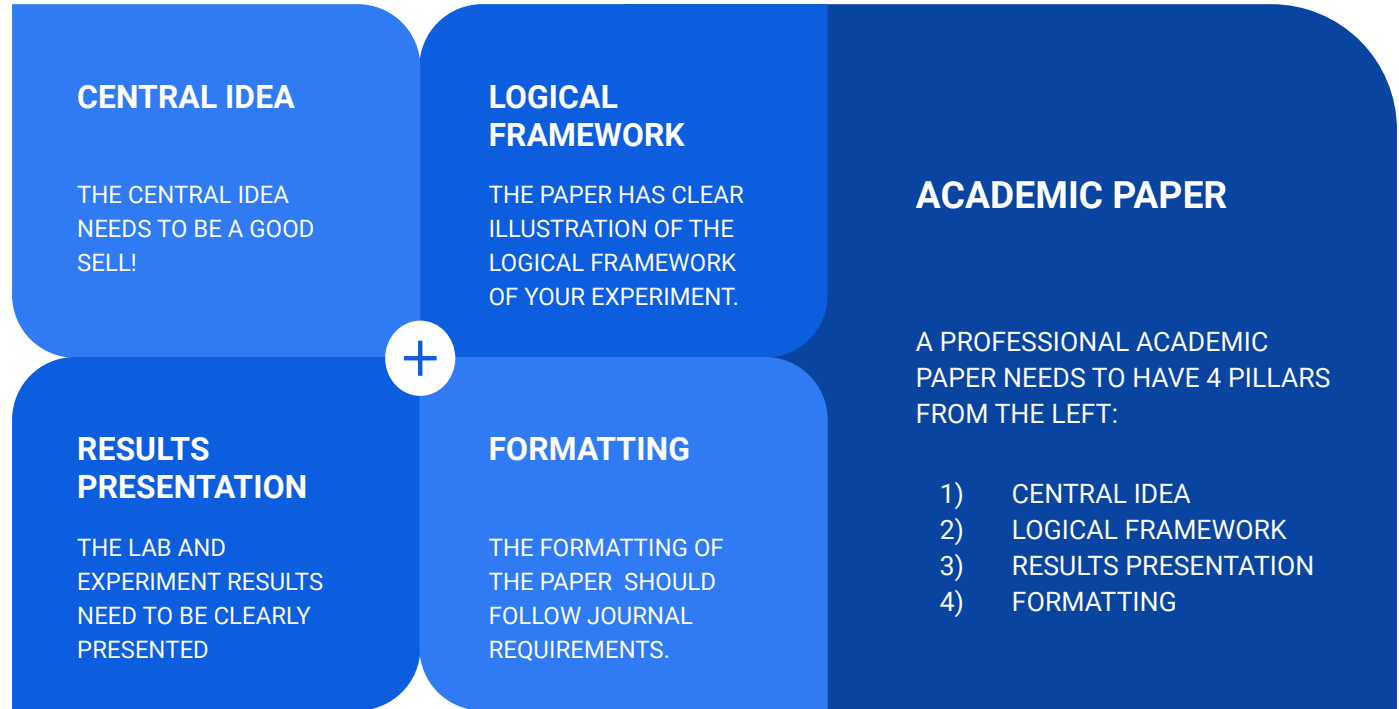


CONDUCT EXPERIMENT

WRITE THE PYTHON CODE
AND PRODUCT THE MACHINE
LEARNING PIPELINE

CONDUCT EXPERIMENT





PAPER

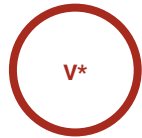


PUBLICATION

JOURNAL SELECTION AND
SUBMISSION, AND GET READY
FOR REVIEWS AND
PRESENTATIONS



PUBLICATION

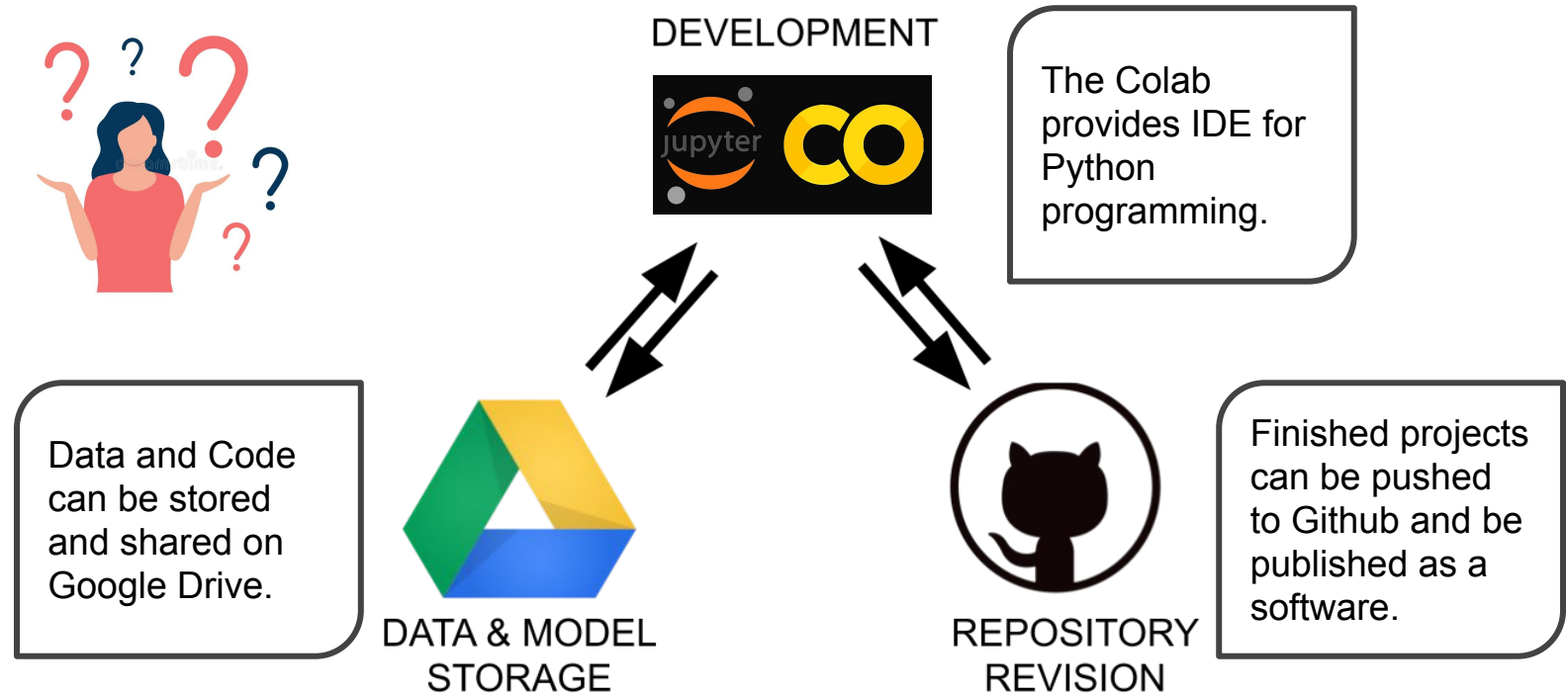


PUBLICATION

BOOK PUBLICATION IS ALSO AVAILABLE | INSTRUCTORS CAN LEAD STUDENTS TO WRITE BOOK CHAPTERS



PUBLICATION



DEVELOPMENT AND DATABASE MANAGEMENT



Career Trajectory

Industry

Undergrad

Grad

PhD

Work

Courses and App.

CS/Math Major, Lots of projects, Gain programming skills,, meet new people, some individual research

Project and Research

More advanced projects, individual/independent research, collaborate on a research team

Dissertation and Practice

Finish dissertation, choose a field of research to focus on in an industry, more of a Generalist in skills

AI/ML/DS

1. Data Science (Analyst, Data Scientist, Sr. Data Scientist, Asso. Director, and Director)
2. Software Engineer (SWE, Sr. SWE, Lead SWE, Director, Manager)
3. Research Scientist (high bar: PhD -> Sr. Scientist -> Director)

Academic

Undergrad

Grad

PhD

Work

Grades and Courses

Math related courses, Grades, Some programming skills, develop math intuition and research

Research and Advisor

Independent research, publications, network with advisors/mentors

Dissertation and Network

Finish dissertation, choose a good department and network which university do you like to teach in, focus on publication

Professor

Publications, Tenure, Grants, Awards

ANY QUESTIONS?

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