

NLPR

Towards Intelligent Science & Technology

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Speaker Introduction

MA Cong

Bachelor:

Intelligent Science & Technology 1302, USTB

Now:

Pattern Recognition & Intelligent Systems,
Institute of Automation, CAS.

Research Area:

Natural Language Processing
- Machine Translation
- Summarization
- Sentiment Analysis



Outline

1. What are you really choosing when Considering of Majors?
2. What can you do in Intelligent Science & Technology?
3. Ask yourself before making a decision
4. Master? Ph. D? Or others?
5. Take-Home-Message
6. Acknowledgement

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1. **What are you really choosing when Considering of Majors?**
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1. What are you really choosing when considering of Majors?

Selecting a Major means ...

- Selecting Courses?
- Selecting Jobs?
- Selecting Salary?
- Selecting ...?

1. What are you really choosing when considering of Majors?

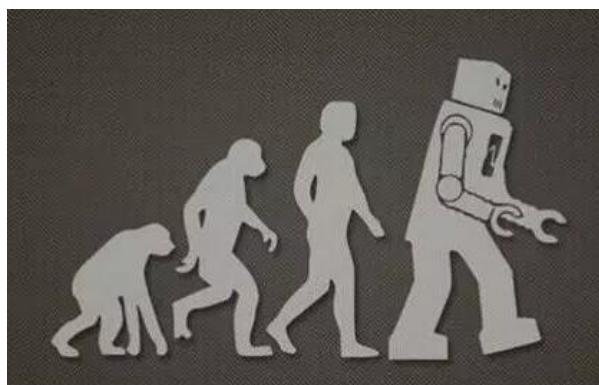
Selecting a Major means ...

- Selecting Courses?
- Selecting Jobs?
- Selecting Salary?
- Selecting ...?



From my personal point of view,

Selecting a major means selecting a research area/direction you are engaged in for the next 3-5 years, or even longer.



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2. What can you do in Intelligent Science & Technology?

Methods are more important than conclusions.



2. What can you do in Intelligent Science & Technology?

Methods are more important than conclusions.

Ways towards Intelligent Science & Technology:

1. Chatting with Teachers and Seniors
2. Reading Guide Articles/programs

- AI Knowledge Tree: https://github.com/SFFAI-AIKT/AIKT/blob/master/AI_Knowledge_Tree.md
- With WeChat, Zhihu, Baidu etc.

3. Reading Papers

- CCF Ranking: <http://history.ccf.org.cn/biaodan.jsp?contentId=2903940690839.htm>
- AI Deadlines: <https://aideadlin.es/> (VPN Needed)
- arXiv: <https://arxiv.org/>

4. By learning about career blueprint
5. Taking advantage of your curiosity

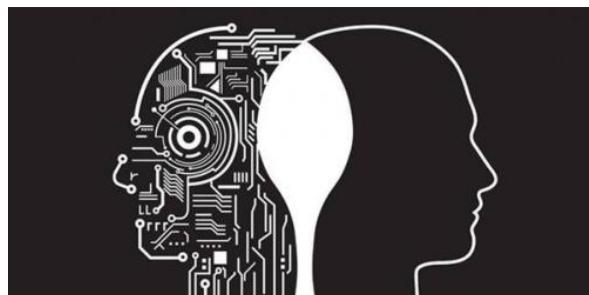


Know what you can choose before know what you decide to choose.

2. What can you do in Intelligent Science & Technology?

Intelligent Science & Technology for Bachelors:

1. Courses: Covering both EE and CS in USTB, but not very deep.
2. Both *Soft* and *Hard* can satisfy you, but need further efforts beyond courses.
3. Specific Tasks (mainly focus on *Soft*)
 - Machine Learning
 - Computer Vision & Computer Graphics
 - Natural Language Processing & Speech Processing
 - Data Mining
 - Brain-like & Brain-inspired Research
 - Robotics



2. What can you do in Intelligent Science & Technology?

Intelligent Science & Technology for Bachelors:

1. Try your best to learn your courses. – Baseline

Freshman – Math, Physics, C, Matrix, etc.

Sophomore – Probability, Matlab, Discrete Math, Cybernetics, etc.

Junior – Computational Intelligence, Brain, Data Structure and Algorithm, Embedded System, etc.

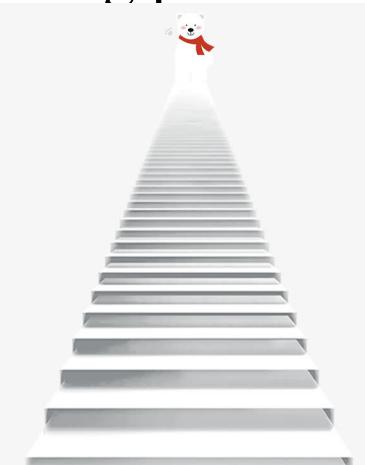
Senior – Linux Foundation, Economy, etc.



2. What can you do in Intelligent Science & Technology?

Intelligent Science & Technology for Bachelors:

1. Try your best to learn your courses. – Baseline
2. Start to learn python, and implement simple Machine Learning Tasks with it. – First Trail
3. Learn Deep Learning(Neural Networks) by online course or reference books and start your experiments. – Entrance
4. Make use of Github to build your AI mind, from public codes to private coding. – Regular
5. Widen your horizon by reading papers, attending professional talks, and communicate with seniors. – Mature



2. What can you do in Intelligent Science & Technology?



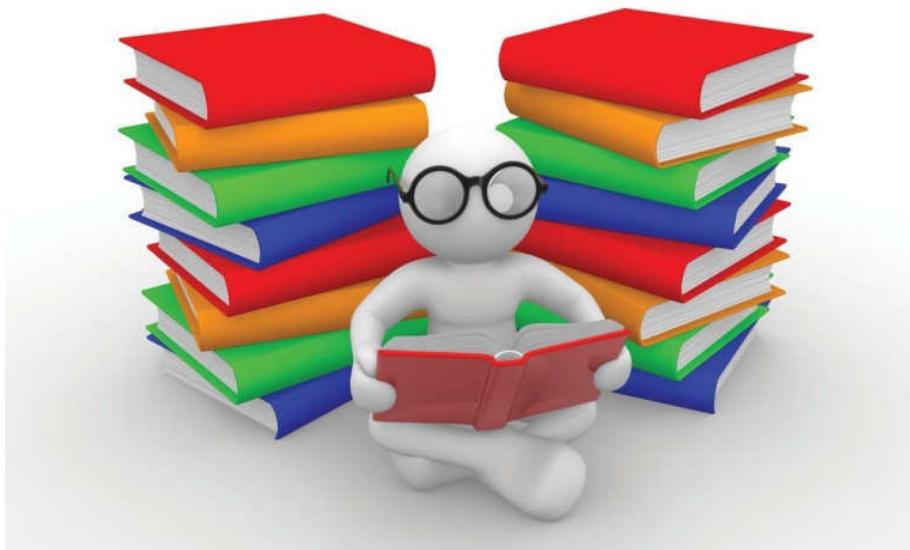
1. 马聪 | 冷思考下的“人工智能”
2. 马聪 | 写给智能本科生的若干不成熟的小想法（上）
3. 马聪 | 写给智能本科生的若干不成熟的小想法（下）

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3. Ask yourself before making a decision

1. What do you like to do or what's your favorite career?
2. Do you hate mathematics?
3. Do you hate coding?
4. Do you hate English?
5. Can you control yourself for fast updating/iteration?



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4. Master? Ph. D? Or others?

1. Bachelor: Learning fundamental Knowledge of this major.
2. Master: Learning further, and gain Experimental skills.
3. Ph. D: Mainly focus on research.



4. Master? Ph. D? Or others?

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About Career:

1. Working in the University – Doing Research
2. Working in the Institute – Doing Research or Projects
3. Working in the Company – Producing Products



4. Master? Ph. D? Or others?

企业	薪酬	岗位
腾讯	60万+和北京户口	机器学习基础研究
腾讯	80万+ (深圳)	图像识别算法研究
百度	30-35K月薪	图像识别算法研究
微软	50-55万	机器学习基础研究
谷歌	50-55万	人工智能研究员
美团	32K月薪+北京户口 (北斗计划)	机器学习基础研究
滴滴	50万+	研究员
滴滴	25K (新锐计划)	算法工程师
今日头条	30-35K+住房补助	AI Lab研究员
网易	45万	人工智能研究员
华为	50万 (25K月薪+奖金+补助)	算法研究员
大疆	35K	算法研究员
Face++	35-40万	Researcher
Face++	50万+	Researcher
商汤	35-40万	Researcher

Data was collected in 2018-mid.

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5. Take-Home-Message

- Choosing what you like, then choosing your major.
- Knowing what you can choose, before you choose.
- No matter what you choose, give yourself your very best.
- Improve your core competitive ability in the major you choose.
- If possible, give yourself a chance to Intern.
- Start Earlier, Keep Longer, Do it Better!



你是主角，
必胜！



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6. Acknowledgement

- Thanks for YANG Zhifang's invitation.
- Thanks for the time in Intelligent Science & Technology, USTB.
- Most figures in this slide are reprinted from Web.



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Thanks

Please feel free to contact me by email
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