

# Ding Ruiyang | Curriculum Vitae

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## Education

- **ShanghaiTech University** **Shanghai, China**  
*Computer Science & Technology, Master of Science in Engineering* 2017–
- **China University of Petroleum** **Qingdao, China**  
*Automation(Elite Class), Bachelor of Science in Engineering* 2013–2017

## Working Experience

- **UAV-CL Lab, ShanghaiTech University** **Shanghai, China**  
*Research Assistant* March 2017–  
Develop an UAV simulation system with UE4 game engine, verify navigation algorithm under this simulator.  
Develop an UAV control system with DJI SDK
  - Develop uniform C++ API interface for api control and data collection with LiDAR, ZED stereo camera, etc.
  - Develop user interface of status display and point cloud visualization with OpenGL.
  - Integrate point registration algorithm, and path-planning algorithm into the system.

## Honor

- 2015 National Undergraduate Electronic Design Contest** **National First Prize**  
2015.09, Hangzhou, China Top 1%
- China National Petroleum Corporation Scholarship** **RMB 6000**  
2015.11, Qingdao, China 1/123

## Projects

- **ShanghaiTech Teacher-Student Matching System:** *A platform for graduate admission*  
<https://github.com/JohnDing1995/Selecting-Master-Program-USA>
  - Develop an graduate admission platform with Django framework.
  - Develop an CAPTCHA generation system with JavaScript to prevent malicious registration.
  - Use *auth* module to develop the user system.
  - Use relational database to represent the selection model between teacher and student, use *MySQL* for implementation.
  - Develop and web crawler to sync teacher's information form ShanghaiTech's website and generate teacher's account automatically, with *request* and *BeautifulSoup* module.
  - Use *Deferred Acceptance Algorithm* for matching between teachers and students.
- **Master Application Helper** *An assistant for graduate school selection*  
<https://github.com/JohnDing1995/shanghaiTechTSMatching>
  - Develop an web crawler with *request* and *asyncio* module to fetch admission case from 1point3acres.com asynchronously.
  - Use *MongoDB* for data storage.
  - Use *threading* and *Queue* to solve the blocking problem between data crawling, parsing and writing.
  - Develop an web app with *Flask* web framework and *Bootstrap & JQuery* libraries, which allows users to query crawled admission cases.
  - Use *WSGI, Nginx* to deploy the web app on Tencent Cloud.

- **SCATicket** *ShanghaiTech Cinema Seat Reservation System*
  - Use Django to build back-end services, design and implement RESTful API
  - Use Django-Jet to set up the background management system
  - Design a relational data model and implementing it with MySQL
  - Design background for visualized seating selection, user selection, seat selection, seat reservation and other functions
  - Use the Django-mail toolkit to automatically send confirmation emails to the user's on-campus mailbox

## Technical and Personal skills

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- **Programming Languages:**  
C++, Python, Java, Golang.
- **Tools and FrameWork:**  
Linux, Git, MySQL, MangoDB, Django, Flask, Bootstrap.
- **(Nature)Language Skills:**  
Chinese(Native), English(Proficient, TOEFL 101),Dutch(Beginner).