

# Biao Jia

## Curriculum Vitae

University of North Carolina at Chapel Hill

Chapel Hill, NC

☎ (+1)919-564-8866

✉ biao@cs.unc.com

📄 github.rmqlife.io

### Education

- Aug.2016- Present **University of North Carolina at Chapel Hill**, *ph.D candidate*, Computer Science Department, advised by Dinesh Manocha.
- Sept.2010- July.2014 **Tsinghua University**, *Beijing*, B.Eng, Computer Science and Technology.

### Relevant Skills

- Language C++, Python, Matlab, Bash, Java
- Framework ROS, OpenCV, OpenAI, Flask, tesseract, NLTK

### Employment History

- Jun.2017- Aug.2017 **City University of Hong Kong**, *Department of Mechanical and Biomedical Engineering*, Research Assistant, Advised by Jia Pan.
- Jan.2017- May.2017 **University of North Carolina at Chapel Hill**, *Department of Computer Science*, Teaching Assistant, advised by Sanjoy Baruah.
- Comp 410.1 Data Structure
- July.2014- May.2015 **Landscape Mobile Tech Co.,Ltd.**, *Beijing*, Algorithm Engineer.
- Designed algorithm for two iOS apps: Sight and Screenshots.
- Built an iOS application dataset and a application classifier with interns.
  - Enhanced the OCR rate on screenshots of tesseract by rebuilding models and rewriting functions.
  - Designed an algorithm to grab the icons and pictures on the screenshots.

### Research Experience

- Aug. 2016 **Resolution-Complete Multi-agent Motion Planning with Arbitrarily-Shaped Obstacles**, *submitted to AAAI 2017*, coauthor with Liang He, Dinesh Manocha.  
We highlight its performance on challenging 2D benchmarks and highlight the benefits over prior methods.
- Spring.2014 **Pedestrian Segmentation after Detection**, *Diploma Project*, advised by Ai Haizhou.  
Apply superpixel segmentation, probabilistic model and sparse coding to compute the segmentation confidence map. Highlight in computing efficiency.
- Summer.2013 **Context based Binary Image Retrieval based on Visual Vocabulary**, *Hong Kong Polytechnic University*, submitted to ICPR 2014.  
Application of this algorithm is to patent image retrieval.

### Courses

- Graduate **University of North Carolina at Chapel Hill.**
- Motion Planning
  - 3D Computer Vision
  - Advanced Machine Learning
  - Natural Language Processing

### Awards

- Sep. 2011 **Scholarship in Tsinghua University** , *3rd Place*.

Nov. 2008 **National Olympiad in Informatics in Provinces**, *1st Prize*.

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