

# Xuandeng Fu

Curriculum Vitæ

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## RESEARCH INTERESTS

My research interests lie in the whole area of computer science and its interdisciplinary disciplines, including but not limited to *quantum computation, algorithms, data structures, computational complexity, combinatorial optimization, microprocessor architecture, machine learning and mathematical finance*.

## EDUCATION

### University of Electronic Science and Technology of China

Chengdu, CHINA

Sep. 2016 - Present

- B.Eng. Student in Microelectronic Science and Engineering
- School of Electronic Science and Engineering
- *Recommended Postgraduate Candidate Exempt from Admission Exam*

### Sichuan University

Chengdu, CHINA

Sep. 2013 - Jul. 2014

- [The Science Talent Program](#) in Computer Science
- Organizer: Children & Youth Science Center, China Association for Science & Technology
- Advisor: Prof. [Ningjiu Tang](#), Game Intelligence

## HONORS AND AWARDS

- **Gold Medal**, 2019 China Collegiate Computing Contest - Group Programming Ladder Tournament. *Mar. 2019.*
- **Excellent Student Scholarship**, University of Electronic Science and Technology of China. *Dec. 2018.*
- **Silver Medal**, The 2018 ACM-ICPC **Asia-East Continent Final**. *Nov. 2018.*
- **Silver Medal**, The 2018 ACM-ICPC Asia Regional Contest (Xuzhou Site). *Oct. 2018.*
- **Gold Medal**, The 2018 ICPC China SiChuan Provincial Programming Contest. *Jun. 2018.*
- **Silver Medal**, 2018 China Collegiate Programming Contest - National Invitational Contest (Hunan). *May 2018.*
- **Gold Medal**, 2018 China Collegiate Computing Contest - Group Programming Ladder Tournament. *Mar. 2018.*
- **Honorable Mention** (Top 40%), 2018 COMAP's Mathematical Contest in Modeling® (MCM). *Feb. 2018.*
- **The First Price** (Only one team), 2018 UESTC's Mathematical Contest in Modeling. *Dec. 2017.*
- **Model Student Scholarship**, University of Electronic Science and Technology of China. *Dec. 2017.*
- **Global 81st Place** (Top 4%), IEEEExtreme Programming Competition 11.0. *Oct. 2017.*
- **Bronze Medal**, The 2017 ACM-ICPC Asia Regional Contest (Xi'an Site). *Oct. 2017.*

## KNOWLEDGE AND COURSES

- **Mathematics**
  - Mathematical Analysis, Linear Algebra, Probability and Mathematical Statistics, Complex Function, Mathematical Methods for Physics, Discrete Mathematics, Elementary Number Theory, Graph Theory
- **Physics**
  - Quantum Mechanics, Statistical Physics, Electromagnetic Field and Microwave, Solid-State Physics, Semiconductor Physics
- **Devices**
  - Microelectronic Devices, Integrated Circuit Principles

- **Circuits & Logic**
  - Fundamentals of Circuit Analysis, Fundamentals of Analog Circuit, Signals and Systems, Digital Design
- **Microarchitecture & Architecture**
  - Microcomputer System and Embedded System Design
- **Operating Systems**
  - Compilers, Computer Organization and Architecture, Computer Network
- **Application Software**
  - Algorithms, Desktop/Website/Mobile Applications Development, Fundamentals of Machine Learning

## PROJECTS

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### Web and iPad-based Informatized Radiation Detection and Report Auto-Generation Platform

*Team Co-Leader & Leading Developer*

*Mar. 2018 - Present*

- A complete set of solutions for informatization of inspection and evaluation process, automation of test report generation and integration of expert review for the top-ranking radiation detection and evaluation service provider in China
- Build a informatization model of the detection process; work on the solution of automatic generation of detection reports
- Participate in the whole process of the implementation of the iPad application, web application and server backend of this platform

### Multi-Platform Information Interaction System Based on Mobile Terminal

*Team Leader & Leading Developer*

*Oct. 2017 - Apr. 2018*

- College Student Innovation and Entrepreneurship Training Plan
- Formulate the development plan; arrange daily team work
- Investigate the advantages and disadvantages of three types of the third-party open platform of WeChat
- Responsible for the actual coding and deployment of WeChat applet and the admin area in website
- Write the final report as the keynote speaker of the project

### Official Website of The 11th Shanghai College Chemistry Experiment Competition

*Fullstack Developer*

*Feb. 2017 - Jul. 2017*

- Responsible for part of frontend, backend and the full of lottery (for randomly picking participants to do experiment) stage

## SKILLS

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<i>Language</i>	Mandarin (Native), Written English (Proficient)
<i>Programming</i>	C/C++, JAVA, Javascript, Python, PHP, Verilog, VHDL, TikZ, Matlab/Octave
<i>Protocols &amp; APIs</i>	XML, JSON, RESTful, GraphQL
<i>Library</i>	Qt, TensorFlow (Keras), scikit-learn, SciPy (NumPy, Matplotlib, pandas, ...)
<i>Frameworks</i>	React, React Native, Vue.js
<i>Tools</i>	L <sup>A</sup> T <sub>E</sub> X, git, vim, Xilinx Vivado, Kali Linux, curl, ...
<i>Databases</i>	MySQL, MongoDB, Redis
<i>Platforms</i>	Windows, Linux, Docker, Desktop, Web, iOS/Android, WeChat Applet

## EXPERIENCE

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### 2018 China Collegiate Programming Contest - Online Trial

*Problem Writer*

*Aug. 2018*

- Propose a problem [HDU 6440 - Dream](#) for the contest

### ACM-ICPC Club of School of Microelectronics and Solid-State Electronics of UESTC

*Vice President*

*Sep. 2017 - Sep. 2018*

- Teaching freshmen algorithms and data structures for participating in ACM-ICPC

## LINKS

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*Blog* <https://blog.abreto.net>  
*Codeforces* <https://codeforces.com/profile/Abreto>  
*GitHub* <https://github.com/Abreto>