

# Yilong Sun

Southeast University Jiulonghu Campus, Nanjing, Jiangsu, 210000, P. R. China

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## EDUCATION

**Southeast University**

*Nanjing, Jiangsu, China*

*School of Physics*

Sep 2018 - Jun 2019

**Relevant Course:** *Calculus(94), Optics(98), Electromagnetism(94), Programming and Algorithm(98)*

**Southeast University**

*Nanjing, Jiangsu, China*

*B.E.in Information Engineering*

Sep 2019 - Jun 2022

**GPA:** 3.94 / 4.0 (Ranking top 5%)

**Relevant Course:** *Partial Differential Equations(96), Physics II(100), Fundamental of Circuits(99), Digital and Logic Circuits(96), Analog Integrated Circuits(95), Electromagnetic Wave and Electromagnetic Field(97), Signals and Systems(93), Microcomputer Systems and Interfaces(94)*

## RESEARCHES AND PROJECTS

***Design of Wideband Reconfigurable Anti-Interference Receiver*** | SEU | Research Assistant    Mar 2020 – Present

*Advisor: Fengyi Huang, Professor at School of Information Science and Engineering, Southeast University*

- Studied and applied the structures of transceiver and anti-interference technique
- Built quantitative relationships between the anti-interference performance and noise figure index of the circuits
- Tested different structures like n-path filter, ADPLL, nonreciprocal filter, etc. to meet the specifications for an improvement on preexisting models
- Patent pending on tape and paper from the research results

***Design of Software Defined Radio Simulation Toolbox*** | SEU | Research Assistant

Nov 2020 – Present

*Advisor: Fengyi Huang, Professor at School of Cyber Science and Engineering, Southeast University*

- Designed a graphical user interface of Software Defined Radio (SDR) with C++
- Wrote a program utilizing deep learning algorithms to identify the modulation mode of the signal according to the time domain and frequency domain waveform of the input signal
- Used All-Digital Phase-Locked Loop technology to identify the center frequency of the input signal

***RoboCup robot Competition*** | SEU | Team Member

Aug 2019 – Oct 2019

*Advisor: Yingzi Tan, Professor at School of Automation, Southeast University*

- Won the First Prize in the entire school in the final competition
- Designed a simulation program to optimize the firefighting process of the fire brigade, doctors, and police

## ACADEMIC / LEADERSHIP EXPERIENCE

***Student Union*** | SEU | Member

Sep 2018 - Jun 2019

- Took the responsibility of the publicity activities of the School of Physics

## PROFESSIONAL SKILLS

Circuit design: using Cadence Virtuoso Schematic Editor, Virtuoso Analog Design Environment (ADE) to design and simulate analog and RF circuits; utilizing Simulink in MATLAB to model communication systems.

Programming: having basic grasp of data structure, high-level programming language including C++, Java and MATLAB.