Aohan He

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EDUCATION

Sep 2011-Current Department of Measurement Control and Information Technology (MCIT), Beihang University (BUAA)

GPA: 89.84/100 (3.85/4.00) Major GPA: 91.57/100 (3.90/4.00) Rank: 2/170

EXPERIENCE

July 2013-Current Undergraduate Research Assistant Adviser: Zhen Liu

Teaching Assistant for Photoelectric Detective Technique and System course (Experiment preparation, presentation preparation for Professor, etc.)

Photoelectric Detection Group, Precision Opto-mechatronics Technology Lab, Beihang University

- (Summer 2014) Participate in the project of On-train Dynamic Rail Wear Measurement System Industrial Practice at BAOCHENG AVIONICS LTD., Shanxi
- (Summer 2013) Participate in the project of Small Gap Measurement in Transmission Component Summer Intern at SOHU INC., Beijing (Participate in a project for the 1st China Smart Device Game.)
- 2012 Teacher as a Volunteer at Huangyuan County, Qinghai Province (West of China) Joined a volunteer team named "Starlight-Piloting" to support fundamental education in West China

Scholarships and Certificates

- TOEFL®: 103 GRE©: 324 (Q:170; V:154; AW:3)
- · National Scholarship of China (2013) (The highest scholarship for the undergraduate in Beihang Univ., offered by the Ministry of Education of China, 50,000 scholarship winners of 25,000,000 college students in China)
- First-prize Scholarship of Academic Performance of Beihang University (2012, 2013, 2014) (10 each grade in MCIT depart., Beihang Univ.)
- National Computer Science Test Certificate (Band 2)(C language)

Honors

- Outstanding Student of Beihang University (2012, 2013, 2014) (Students obtaining this for three times can get the graduate school admission qualification of Beihang University)
- Merit Student of Beihang University (2012, 2013, 2014) (14 each grade in MCIT depart., Beihang Univ.)
- · Honorable Mention Award of Mathematical Contest in Modeling(MCM) (2013) (Held annually by the Consortium for Mathematics and Its Application(COMAP), the most influential Mathematical Contest in Modeling around the world)
- First Prize in the 22nd "Feng Ru Cup" Competition of Innovation (2012) (Annual competition of student scientific innovation works in Beihang Univ.)

SKILLS

Embedded System Use ADS and Keil to develop the program controlling GPIO and UART of ARM experiment box; configuration and compilation of embedded Linux kernel; cross-compile and download program to embedded system

Verilog and VHDL Use Modelsim to design and simulate driver circuit of CCD (based on Verilog); use Quartus to design the state machine of stepping motor and traffic light system

Matlab Develop Image processing Matlab programs for camera calibration and structure light calibration in lab; IIR and FIR filter design based on Matlab; Direct Digital synthesizer design based on Simulink toolbox; CORDIC algorithm realization and research; Mathematical modeling and data processing in MCM contest

LabVIEW Develop LabVIEW program for Chlorophyll content detection

OpenCV Project named "Recognition of Sketched Electrical Diagrams based on OpenCV"; Research on the selection of two thresholds in Canny Edge Detector; Structure light calibration based on OpenCV; Lab research on rapid extraction algorithm of laser stripe center for On-train Dynamic Rail Wear Measurement System

Multisim Analog Circuit Design, Simulation and Performance Evaluation based on Multisim

 $\text{ET}_{\mathbf{F}}\mathbf{X} \mathbf{2}_{\varepsilon}$ Writing Paper for MCM

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