

# Xia Hua

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## Education

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**University of Cambridge** 2019 – 2023

- PhD in Engineering (Optical Pre-classifier for Deep Learning)
- Modules include Probabilistic Machine Learning, Deep Learning and Structured Data

**University of Cambridge** 2018 – 2019

- Master of Research (MRes) in Integrated Photonic and Electronic Systems
- Modules include Computer Vision, Optical Fibre Communication, Management of Technology and etc.

**University of Warwick** 2015 – 2018

- Bachelor of Engineering (BEng) in Engineering (General), First Class Honours
- Specialised in Electronic Engineering in third year

**Abbey College Cambridge (High School)** 2013 – 2015

- A-Level Mathematics, Further Mathematics and Physics (A\*A\*A), AS Economics (A)

## Work Experience

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**VividQ** Cambridge, UK

*R&D Software Engineer* Jun. 2019 – Aug. 2019

- Implement several algorithms in MATLAB for Computer Generated Holography
- Investigate the layer based algorithm to achieve full parallax for 3D holographic display
- Retrieve depth layer and amplitude information from Unity through Visual Studio (C#)

**Kantar Media CIC** Shanghai, China

*Business Data Analyst Internship* Jul. 2018 – Sep. 2018

- Social media data mining and analysis through Python, Excel and etc.
- Generate daily, semi-month, month and other reports for clients
- Clients include Huawei, Qualcomm, Coca-Cola and etc.

**Warwick Manufacturing Group (WMG)** Coventry, UK

*Summer Research Internship* Jul. 2017 – Sep. 2017

- Supervisor: Professor Richard McMahon
- Research on battery and converter sizing and battery management algorithm by using MATLAB and Simulink
- Built a Simulink model, analysed data from house power monitor hub.

**TATA Consultancy Services** Shanghai, China

*Assistant System Administrator Internship* Jul. 2016 – Aug. 2016

- Maintained operating systems such as updating software and fixing users' issues by remote control through client-server
- Assembled and updated desktops for the company's clients (Nelson and JP Morgan)
- Assisted the Information System team classify users' network switch port

**China CITIC Bank** Yangzhou, China

*Summer Internship* Jun. 2014 – Jul. 2014

- Worked under Department of International Business
- Learned how systems such as Swift, Chips work in BIS (bank for international settlements)

## Skills

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**Programming Language**

- MATLAB, L<sup>A</sup>T<sub>E</sub>X, Python, Verilog, C#

## Professional Software

- Silvaco TCAD Atlas, Simulink, Tanner Tools, Origin, Octave, SolidWorks

## Honours and Awards

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University of Warwick URSS Award (£1600)	2017
Distinction (Ranked top 200 in the UK) in British Mathematical Olympiad	2015
Gold Certificate in Senior Mathematics Challenge	2014

## Projects

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Comparison between Analogue and Digital Radio over Fibre Systems	Nov. 2018 – May. 2019
Assessment of Properties of Mid-Infrared LEDs in a Gas Sensing System	Oct. 2017 – Mar. 2018
FPGA VGA Game Desgin	Oct. 2017 – Dec. 2017
Ultrasonic Sensor Prototype Device	Nov. 2016 – Jan. 2017
Intelligent Robot Vehicles	Jan. 2016 – Apr. 2016

## Conferences

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International Conference of Undergraduate Research (ICUR)	Coventry, UK Sep. 2018
Mid-Infrared LEDs Gas Sensors - A more efficient gas detection approach for industrial environmental monitoring	

## Position of Responsibility

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Warwick Chinese Drama Society	Coventry, UK
Sound Director	Oct. 2016 – Feb. 2017
<ul style="list-style-type: none"><li>○ Head of sound effects department, responsible for planning the sound effects and background music</li><li>○ Performed for two dramas shown at Warwick Arts Centre</li></ul>	

## Interests

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Marathon, hiking and classical Music