

# Chunyang Ding

9210 Rhode Island Ave, College Park, MD 20740

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## RESEARCH AND WORK EXPERIENCE

### IonQ

*Junior Physicist*

- Working with Dr. **Kristin Beck** and Dr. **David Wong-Campos** on advanced optical design and implementation for trapped ion quantum computing systems

**College Park, MD**

6/2019 – Present

### Yale University, Applied Physics Department

*Student Researcher*

- Designed and prototyped modular broadband microwave cavity attenuator design for noise reduction in superconducting quantum computing systems with Principle Investigator Professor **Michel Devoret**
- Design of electronic systems for testing of shot noise thermometers on parametric amplifiers

**New Haven, CT**

1/2018 – 5/2019

### Yale University, Physics Department

*Student Researcher*

- Designed and built optical lens systems using OSLO for imaging trapped ultra-cold potassium atoms in a magneto-optical trap with Principle Investigator Professor **Nir Navon**
- Designed, prototyped, and fabricated 400 Gauss Feshbach magnetic coils and additional support systems.

**New Haven, CT**

5/2017 – 1/2018

### University of Science and Technology of China

*Research Intern*

- Completed Python noise removal code to boost image signal-to-noise ratio of ultracold atoms with Principle Investigator Professor **Bo Zhao**
- Built a Mach-Zehnder Interferometer for a quantum eraser experiment with Professor **Lu Chaoyang**

**Shanghai, CN**

8/2015 & 8/2016

### Yale University, Astronomy Department

*Student Researcher*

- Participated in the Satellites Around Galactic Analogs collaboration with Professor **Marla Geha**
- Created Python program with Gaussian regression and Chi-squared analysis to classify galactic spectra

**New Haven, CT**

10/2015 – 8/2016

## EDUCATION

**Bachelor of Science in Physics (Intensive)** from **Yale University** | GPA (3.79/4.00) | Class of 2019  
Fellow at U. **Waterloo** Undergraduate School in Experimental Quantum Information Processing, 2018  
Valedictorian of **Interlake High School**, Class of 2015 | GPA (4.00/4.00) | IB Diploma, 16 AP exams  
Student at **Summer Science Program**, 2014

New Haven, CT

Waterloo, ON

Bellevue, WA

Westmont, CA

## Awards

- Received Yale Rosenfeld Science Scholar Fellowship and Saybrook Research Fellowship 2018
- 3<sup>rd</sup> place award at Yale Undergraduate Research Symposium, out of 40 participants 2018
- Received Tsai City Innovation Award as co-founder of LitKit, a fluorescent microscope device 2018
- Recipient of Society of Physics Students Reporter Award for 2016 PhysCon 2016
- Received Yale Freshman Fellowship and Saybrook Richter Fellowship for Summer Research 2016

## Activities

- Chair of Dean's STEM Advisory Committee on Science and Quantitative Reasoning 2017 – 2019
- Board Member and Secretary of Yale's Society of Physics Students 2017 – 2019
- Editor-in-Chief of the Yale Scientific Magazine 2016 – 2018
- Director of Speakers and Content at the 16<sup>th</sup> Annual Ivy Leadership Summit 2016

## Specific Skills and Interests

- Skilled in using HFSS (EM Wave Simulator), Microwave Office (Lumped Element Simulator), OSLO (optical systems)
- Proficient in machine shop tools for wood, plastic, and metal, including using laser cutters, waterjet cutters, drills, and lathes.
- Fluent in Java, Python, Matlab, C# languages for data analysis and visualization, familiar with Mathematica and Solidworks
- Strong scientific communication skills, author of fourteen articles in the *Yale Scientific Magazine*

## References

Dr. Michel Devoret, Professor of Applied Physics at Yale  
Dr. Sandy Chang, Associate Dean of Science and QR at Yale

Dr. Nir Navon, Assistant Professor of Physics at Yale  
Dr. Michael Faison, Lecturer of Astronomy at Yale