

Wenzhuo Huang

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Education

University of California, San Diego

PH.D. IN ELECTRICAL AND COMPUTER ENGINEERING, GPA:3.8/4.0

La Jolla, CA, USA

09/2016 - 06/2022 (expected)

M.S. IN ELECTRICAL AND COMPUTER ENGINEERING

09/2016 - 06/2018

Peking University

B.S. IN PHYSICS, GPA:87/100

Beijing, China

09/2012 - 06/2016

Honors & Awards

2015 **Academic Innovation Award**, Peking University

Beijing, China

2012 **Gold Medalist**, 43rd International Physics Olympiad (IPhO)

Tallinn, Estonia

2012 **Gold Medalist**, 28th Chinese Physics Olympiad

Xi'an, China

Projects and Experience

GRADUATE RESEARCHER AT UC SAN DIEGO

09/2016 - Present

- Built analytic model and performed numerical simulations on photonic nanostructures using Matlab and open-source modules.
- Wrote Python script to fit and optimize sample characteristics based on large experimental datasets.

RESEARCH INTERN AT FACEBOOK REALITY LABS

09/2021 - 12/2021

- Designed and optimized on-chip hardware components for next-generation AR/VR devices using PyTorch.

QUANTITATIVE RESEARCH INTERN AT CITADEL SECURITIES

06/2021 - 08/2021

- Built a Python library for systematic feature engineering for alpha research.

UNDERGRADUATE RESEARCHER AT PEKING UNIVERSITY

09/2013 - 06/2015

- Modified the thin-disk model of quasar after analyzing spectra from thousands of galaxies using Mathematica.
- Designed an ultra-compact slot antenna using finite-difference time-domain method.

Skills

Data analysis Optimization and Regression, Image processing, Neural networks

Programming Python, Matlab, Mathematica, Linux, \LaTeX

Simulation Electromagnetic simulation (solving differential equations), Monte Carlo Method

Courses and Activities

Relevant coursework

Calculus on Manifolds, Computational Statistics, General Relativity, Machine Learning, Neural networks and Deep learning, Personal Finance, Portfolio Construction and Analysis with Python

Teaching Assistantship

Electronic Devices and Circuits for NanoEngineers, Fundamentals of Devices and Materials, Medical Devices and Interfaces

Volunteering

Graduate mentor of Jacobs Undergraduate Mentoring Program (JUMP)

Certificates

- CFA Institute Investment Foundations
- MicroMBA in Rady School of Management at UCSD

Selected Publications

- W. Huang**, C. De-Eknamkul, E. Cubukcu. "Direct Observation of Polarization Vortex on Exceptional Ring via WS_2 Photoluminescence." *In preparation*.
- X. Zhang, X. Zhang, **W. Huang**, ..., E. Cubukcu. "Ultrathin WS_2 -on-Glass Photonic Crystal for Self-Resonant Exciton-Polaritonics." *Advanced Optical Materials* 8.7 (2020): 1901988.
- W. Huang**, C. De-Eknamkul, ..., E. Cubukcu. "Monolayer Excitonic Emission for Imaging Spatial Dispersion of Photonic Crystals." *ACS Photonics* 6.9 (2019): 2312-2319.
- W. Huang**, J. Yang, X. Xiao, J. Zhang. "Surface Plasmon Polariton Unidirectional Nano-Launcher Based on the Strong Coupling Effects in an Asymmetric Optical Slot Nanoantenna Pair." *Plasmonics* 10.6 (2015):1551-1556.