

# 黃奕立

## I-Li Huang

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<https://github.com/uzuism/>  
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### Basic Info

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- Master graduate from National Taiwan University, Semiconductor Lab under Prof. Yang-Fang Chen with hands on experience in Random Laser phenomenon and Hyperbolic Metamaterial.
- Practical experimental experience for device integration between 2D Materials and opto-electronic devices from bottom-up material synthesis, device characteristic measurements to computer aided simulation like Ansys Lumerical.
- Due to Covid-19 starting from April 2021, the exact date of commencement and Clearance procedure for school leaving postpone to end of Oct 2021.
- Open to new possibility and new paradigm shift for another branching of life experience. Currently working toward the internship in summer of the first job-hunt.

### Institutions

2017–2021	<b>MS. in Physics</b> <i>National Taiwan University, Taipei city</i> Focusing on random laser phenomenon research and opto-electronic device development. Acquire the basic apparatus working principle and be qualified to operate on essential functionality over devices such as SEM, AFM, STM(only once), micro-Raman scattering measurement system, CVD, PVD. Thesis: <i>Omnidirectional Optically Pumped Random Lasing Action from Spiral Hyperbolic Metamaterial/Graphene Microstructure</i> Advisors: <a href="#">Yang-Fang Chen</a> .
2016–2017	<b>Military Service _alternative service</b> <i>Jingzhong Elementary School</i> Guard, provide pre- and post-school traffic guidance, after-school care
2011–2016	<b>BS. in Physics.</b> <i>National Tsing Hua University, Hsinchu city</i> Under the program of electrics and photonics I was able to apply to a wide range of variety of course. Advisor: <a href="#">Chang, Tsun-Hsu</a> .
2008–2011	<b>High School</b> <i>Concordia Middle School</i> Graduated 6/250s student. Achieved Gold metal award while participating in the 2nd Taiwan Young-Student Physicists' Tournament in 2011. And made into the training camp for final IYPT contest selection.

### Work Experience

While it is nearly a cultural norm for students traveling abroad pursuing MS. PHD. programs to attend to internship during the intermission of semesters, university students who that lived here Taiwan locally, has never been a fan for internship programs. Visa validation and student identity morphed the academic pursuit in a very peculiar way. I'd never encounter a student enrolled into school for the summer internship or full-time internship. As a student on the less meticulous side, I had been quite abashed to have to go through self records. However, we still have to move on, ardently, diligently.

2013-2014	<b>Environmental setup for the new surface and Molecular surface laboratory at Phys. building R019 – Research Assistant</b> <i>National Tsing Hua University</i> Laboratory setup for R019 and segmented STM chamber compartment transfer from Academia Sinica. I work primarily as a contact person between Professor <a href="#">Hoffmann, Gernar</a> , a German native speaker, and school administrative or various other cooperating entities. Procurement paper works including but not limited to Tender opening, Banking wire transfer, Quotations and Invoice collection.
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2019-2020	<b>General Physics Laboratory – Teaching Assistant</b> <i>National Taiwan University</i> Full-scale, Instructor level of lab experiment sessions. Construct Syllabus under a general guidance with only lab schedules set by the lead TA. Cowork with Ph.D. student <a href="#">Hsu, Shih-Ying</a> to give a 30-40min lecture to College Freshman for theoretical inspiration, and experimental guidance before 10 assigned experiments. A great time to unveil mathematics expression and sparks light onto the following Applied Mathematics, Statistic courses. Collect 3 reports and renovate final exam sheets. The official instructor of the course is Prof. <a href="#">Yang-Fang Chen</a>
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## Extra-Curricular Activities

Current projects and other on-going information would be updated at <https://github.com/uzuism/>.

2021	<b>Referendum for reinstatement of the fourth nuclear powerplant – Volunteer</b> <i>Taipei Zoo metro station</i> site volunteer for Issue promotion. Also I held talks concerning Energy and Global Warming issues on app Clubhouse every Saturday night 8pm. from Oct to Dec. 2022. Initiate information exchange with other Mandarin speaking community such as Club_ClimateAvengers, whose member mostly located at USA.
2012-2013	<b>NTHU Physics Badminton Team – Vice Captian</b> <i>National Tsing Hua University</i>

## Languages

HUMAN	Mandarin (mother tongue). English (TOEFL ibt scores reaching 91pt taken back at 2011. ). Japanese(N4 N3 level, never taken JLPT though.)
MACHINE	self-studied C++, Mathematica, recently pushing forward to bash/shell, some superficial knowledge of Python, Matlab while I insert functionality in Ansys Lumerical; markup languages $\LaTeX$ / $X_{\LaTeX}$

## Schedule and Future prospect

If I orient from my thesis study, the most recent future career for me would be toward some key words around coating device, LED, radio detector, Lidar, maybe a less prominent transistors and the like. The pursuit of a career life in Taiwan base on my mere knowledge had been limited also due to the fact that metamaterial though fancy and attractive to scientific purpose lacks practical and vast usage. The lack of hands on knowledge for if I want to pursue a job beyond Equipment Engineering embarks aspirations. A brisk turn and follow up on the full EE courses has been my recent paradigm shift.

### Usual Workflow

I'm currently occupying my morning on ocw course Operating System then the first half of afternoon time on ocw course Algorithm. For the rest of the time I look up JDs, participate in recruitment briefings, workshops.

### Programs I'm trying to be Familiar With

Bash/shell, Python(Pandas, matplotlib), Verilog.  
I'm current building my CV purely via vim under cygwin terminal.

## Reference

ADVISOR	<b>Prof. Yang-Fang Chen , Phys. NTU</b> <i>Chair professor</i> +886-2-33665125 – yfchen@phys.ntu.edu.tw
COURSE	<b>Prof. Samuel C. Pan, EE. NTU</b> <i>Adjunct Professor</i> +886-2-3366-3366 – samuelpan@ntu.edu.tw EEE5054 – Semiconductor Electronic Product Engineering

Email me with your interests in me and I'll refer you to someone who can vouch for me.  
I'll try to keep up the good work.