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Education Background

09/2019-12/2021	**Northwestern University**		Evanston, IL, U.S.
	M.S. in Computer Engineering	Major GPA: 4.0/4.0, Overall GPA: 3.95/4.0	
09/2013-06/2017	**Peking University (PKU)**		Beijing, China
	B.S. in Computer Science and Technology	Major GPA: 3.11/4.0, Overall GPA: 2.82/4.0	

Research Experience

06-12/2021	**Co-researcher**	**NuLogiCS research Group, Northwestern University**
Logic encryption related research *(supervised by Prof. Hai Zhou)*	**Research content**: learning the basic knowledge of logic and cryptography to be used in logic encryption research. Try to raise and solve the open problems in this field. **Work done**: - Systematically reading key research papers in the field of logical encryption. - To try to encrypt the circuit design in the synthesis stage using techniques including rewriting, obfuscation and so on. **Expertise acquired**: basic knowledge of logic and cryptography required for logic encryption research, commonly used logic design manipulation libraries and open source tools	
07-09/2020	**Co-researcher**	**Online Market Laboratory, Northwestern University**
Survey on Persuasion *(collaborated with Yingkai Li, supervised by Prof. Jason Hartline)*	**Research content**: to make familiar with Bayesian persuasion, persuasion economy and monotone persuasion, to ask questions worth discussion **Future work**: to dig further on some open questions: - Simple conditions on the primitives that guarantee constant approximation of the monotone persuasion - Robust persuasion under various models **Expertise acquired**: how to follow research on a certain theoretical topic and find open questions	
04-06/2020	**Independent Researcher**	**Online Market course, Northwestern University**
Online Revenue Maximization on Selling Introductions *(supervised by Prof. Jason Hartline)*	**Research objective**: to design a mechanism for Selling Introductions problem and maximize online revenue. **Work done**: - Completed designing a mechanism with the known distribution of the value of employers and employees to meet by the priced introduction, proved the mechanism to be truthful - Maximized expected revenue by maximizing virtual welfare - Using exponential weight method to do online learning on the mechanism **Expertise acquired**: basic knowledge about game theory, mechanism design, online market and several online learning algorithm, how to code in both Java and R to perform online learning	
04-06/2020	**Independent Researcher**	**Scalable Software Architecture course, Northwestern University**
A news search engine *(supervised by Prof. Stephen Tarzia)*	**Research objective**: to realize a scalable news search engine **Work done**: a complete search engine based on AWS cloud service, including front-end, back-end and load balancing functions **Expertise acquired**: industrial-level large-scale software design technology	
01-03/2020	**Co-researcher**	**Theory+X Seminar, Northwestern University**
Survey on Adaptive Data Analysis and Everlasting Database *(supervised by Prof. Jason Hartline)*	**Work content**: following Dwork et al's research on Adaptive Data Analysis and Woodworth et al.'s research on Everlasting Database, Zrnic and Hardt's research on Natural adaptive analysts was discussed. **Expertise acquired**: basic concepts and methods of computational theory, including Hoeffding's inequality, etc.	

06/2017 -01/2018	Independent Researcher	Center for Energy-Efficient Computing and Applications, PKU
GRT Sensing v1.0 *(supervised by Prof. Tao Wang)*	➤ **Research objective**: to equip household robot with GRT sensing system with the function of fall prevention for the elders via recognizing human status through walls ➤ **Work done**: completed the construction of GRT Sensing v1.0 for real-time display of CSI and space disturbance ➤ **Expertise acquired**: network protocol stack, com transmission library, gnuplot, and the architecture of GRT 2.0	
03-07/2017	Co-researcher	Software Engineering Institute, PKU
"Waiter" *Cell phone software* *(supervised by Prof. Gang Huang)*	➤ **Functions**: food-ordering with voices via multiple applications ➤ **Work content**: object-oriented analysis and design (wrote using codes—voice API, Yanyun Reflection API for inter-App ordering) ➤ **Practical application**: under negotiation with investors	
05/2017	Independent Researcher	Institute of Microelectronic, PKU
Wifi Connector for projector *(diploma design, supervised by Prof. Dunshan Yu)*	**Achievements:** ➤ Completed a connector for projector via Wi-Fi ➤ "Excellent Graduation Design" of PKU (top 5%) **Work content:** ➤ Adopted object-oriented technique for complete analysis and design ➤ Analyzed the transmission property and designed server and client based on Netty for asynchronous video stream transmission ➤ Deploy design at multiple ends, achieved expected experimental outcome after debugging	
04/2016	Co-researcher	Center for Energy-Efficient Computing and Applications, PKU
FPGA-based CNN Accelerator *(supervised by Prof. Guangyu Sun)*	➤ **Research objective**: to learn how to do FPGA design via high-level synthesis tools and realize hardware optimization on convolution calculation ➤ **Work done**: learned how to use Tcl scripts to modify specific calculation processes via the Xilinx Vivado tool chain	

Work Experience & Internship

01/2018 – 08/2019	Project Manager	Beijing Yidian Science and Technology Co., Ltd
"Yidian" *Online-Diagnosis Platform*	➤ **Features**: a multi-sided platform to connect online diagnosis and treatment and offline resources ➤ **Work done**: completed the major part of the platform with functions of online inquiry, hospital searching, online registration and after-treatment services ➤ **Expertise acquired**: communicating work with doctors and patients, designing the interface	
07/2015	PD & Test Engineer	Beijing Simpulife Science and Technology Co., Ltd
"Uniwork" *Cell Phone Software*	**Features**: intelligent cell phone software for college students (facilitating event management, notice issuing, and management of student organizations) **Work Content:** ➤ Participated in product positioning, design and testing of the first edition ➤ Completed all assessment and debugging work	

Other Information

Award	3rd Prize	ACM Programming Contest of PKU
05/2015	Our team ranks 35 among 377 teams from and not limited to Peking University.	
Leadership	Director	Liaison Dept. of the Students Union of PKU
09/2014-07/2015	➤ Designed posters and outreach programs for group activities organized by Students Union ➤ Helped with event management issues	
Skills	➤ Language: Java, C/C++, VHDL/Verilog, Python, Rust, Matlab, R, etc. ➤ Software: Xilinx Vivado, Intel Quartus, ModelSim, Jetbrain Tools, Android Studio, Xcode, etc. ➤ Tool: CUDA, OpenCV, OpenBR, Maven, Git, AWS SDK, etc.	