

# Wonkyo Choe

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INTERESTS	Computer Architecture, Operating Systems, Memory Systems.	
EDUCATION	<b>Ajou University</b> , Suwon, Korea, Repulic of <i>M.E. in Computer Engineering</i> <ul style="list-style-type: none"><li>▪ Advisor: Jeongseob Ahn</li><li>▪ GPA: 4.38 / 4.50 (3.89 in 4.00 scale)</li></ul>	Aug 2018 – Feb 2021 (Expected)
	<b>Ajou University</b> , Suwon, Korea, Repulic of <i>B.E. in Computer Engineering</i>	Mar 2011 – Aug 2018
RESEARCH EXPERIENCE	<b>Computer System Laboratory</b> , Ajou University <i>Research Assistant</i> <ul style="list-style-type: none"><li>▪ Advisor: Jeongseob Ahn</li><li>▪ Project: Analysis of Linux memory placement on NUMA machine<ul style="list-style-type: none"><li>• Co-advised by Sang-Hoon Kim</li><li>• Analyzed memoey interference of multi-tenant on 4 sockets machine</li></ul></li><li>▪ Project: Analysis of Linux memory placement on persistent memory<ul style="list-style-type: none"><li>• Published as "A Study of Memory Placment on HW-assisted Tiered Memory Systems"</li><li>• Analyzed Intel Optane DC persistent memory on the latest Linux kernel (v5.3)</li><li>• Implemented a hybrid memory placement strategy for persistent memory</li></ul></li><li>▪ Project: Analysis of Linux system calls behavior<ul style="list-style-type: none"><li>• Studied Linux system calls procedure in user and kernel space</li><li>• Analyzed cache memory before and after system calls execution</li><li>• Evaluated diverse benchmarks with Cache Allocation Technology (CAT)</li></ul></li></ul>	Jan 2020 – Jun 2020
		Aug 2019 – Jan 2020
		Aug 2018 – Aug 2019
	<b>Computer System Laboratory</b> , Ajou University <i>Undergraduate Research Student</i> <ul style="list-style-type: none"><li>▪ Advisor: Jeongseob Ahn</li><li>▪ Project: Analysis of network packets placement on NUMA machine<ul style="list-style-type: none"><li>• Studied process of network packets between NIC and main memory</li><li>• Analyzed processing time of network packets on each main memory of NUMA</li></ul></li></ul>	Mar 2018 – Aug 2018
PUBLICATIONS	<b>JOURNALS</b>  [1] Wonkyo Choe, Jonghyeon Kim and Jeongseob Ahn, <i>A Study of Memory Placement on HW-assisted Tiered Memory Systems</i> , IEEE Computer Architecture Letters (CAL), Vol. 19, No. 2, 1 July-Dec. 2020 [ paper   lightning talk ]	
AWARDS & SCHOLARSHIPS	<b>SCHOLARSHIPS</b> <ul style="list-style-type: none"><li>▪ Computer Scholarship, Ajou University Academic Scholarship Spring 2018</li><li>▪ Dasan Scholarship, Ajou University Academic Scholarship Fall 2016</li><li>▪ Yulgok Scholarship, Ajou University Academic Scholarship Spring 2016</li><li>▪ Woncheon Scholarship, Ajou University Academic Scholarship Fall 2011</li></ul>	

<b>WORK EXPERIENCE</b>	<b>Biztech, Inc.,</b> Irvine, CA, USA <i>Web Application Programmer</i> <ul style="list-style-type: none"> <li>Implemented various website projects for individuals and businesses</li> <li>Developed a web-based water purifier rental management system</li> </ul>	Jan 2017 – Jan 2018
<b>TEACHING EXPERIENCE</b>	<b>SCE212: Computer Organization and Architecture,</b> Ajou University <i>Teaching Assistant</i> <ul style="list-style-type: none"> <li>Introduced a brief concept of computer architecture for assignments</li> <li>Taught basic Linux commands &amp; environment and class materials (e.g. git)</li> <li>Issued MIPS, pipeline, and cache structure assignments and answered questions in person and online</li> </ul>	Spring 2018 – Fall 2018
<b>EXTRA ACTIVITIES</b>	<b>System Reading Group</b> <ul style="list-style-type: none"> <li>Presented and analyzed system papers of lead conferences on weekly basis</li> </ul>	Mar 2018 – Dec 2019
	<b>Linux Kernel Group</b> <ul style="list-style-type: none"> <li>Gave lectures and made assignments related with Linux kernel on weekly basis</li> </ul>	Mar 2018 – Dec 2019
<b>SKILLS</b>	<ul style="list-style-type: none"> <li>Programming Language: C, Python, Bash script</li> <li>System Programming: Linux Kernel</li> <li>Benchmarks: YCSB, SPEC, PARSEC, Cloudsuite</li> <li>Miscellaneous: <math>\text{\TeX}</math>, <math>\text{\LaTeX}</math>, Matplotlib, Microsoft Word, Microsoft Excel, Microsoft PowerPoint.</li> </ul>	
<b>REFERENCES</b>	<ul style="list-style-type: none"> <li> <b>Professor Jeongseob Ahn</b>  Assistant Professor of Computer Engineering  Ajou University  Suwon, Korea, Republic of  jsahn@ajou.ac.kr  <a href="https://jeongseob.github.io/">https://jeongseob.github.io/</a> </li> <li> <b>Professor Sang-Hoon Kim</b>  Assistant Professor of Computer Engineering  Ajou University  Suwon, Korea, Republic of  sanghoonkim@ajou.ac.kr  <a href="https://sslabslab.ajou.ac.kr/people/sanghoon">https://sslabslab.ajou.ac.kr/people/sanghoon</a> </li> <li> <b>Professor Sungsoo Kim</b>  Professor of Computer Engineering  Ajou University  Suwon, Korea, Republic of  sskim@ajou.ac.kr </li> <li> <b>Professor JeongGil Ko</b>  Assistant Professor of Integrated Technology  Yonsei University  Seoul, Korea, Republic of  jeonggil.ko@yonsei.ac.kr  <a href="https://sites.google.com/site/jeonggilko/">https://sites.google.com/site/jeonggilko/</a> </li> </ul>	

[CV compiled on 2020-11-19]