

# Sukmin Kim

<https://smkim7-kr.github.io>

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EDUCATION	<b>The University of Hong Kong</b> <ul style="list-style-type: none"><li>Bachelor of Engineering in Computer Science</li><li><b>CGPA: 3.73 / 4.3 (Major CGPA: 3.85 / 4.3)</b></li><li>A+ in Software Engineering, Probability &amp; Statistics, Applied Deep Learning, Calculus and ordinary differential equations, Linear algebra, Discrete Mathematics</li></ul>	<i>Sept. 2017 - Present</i> <i>Pokfulam, Hong Kong SAR</i>
	<b>North London Collegiate School Jeju</b> <ul style="list-style-type: none"><li><b>International Baccalaureate: overall score 42 / 45</b></li><li>Achieved level 7 in all HL Subjects: Mathematics, Physics and Economics</li><li>IGCSE (7 A* including Mathematics, Additional Mathematics and Biology)</li></ul>	<i>Sept. 2013 - Jun. 2017</i> <i>Jeju Island, South Korea</i>
PUBLICATIONS	DeepAccident: Motion and Accident prediction Benchmark for V2X Autonomous Driving <a href="#">[paper]</a> Tianqi Wang, <b>Sukmin Kim</b> , Wenxuan Ji, Enze Xie, Chongjian Ge, Junsong Chen, Zhenguo Li, Ping Luo <i>Under Review</i>	
RESEARCH EXPERIENCES	<b>HKU MMLab</b> <i>Part-time Research Assistant (Supervisor: Prof. Ping Luo)</i> <ul style="list-style-type: none"><li>Assisting research project on autonomous driving, proposing metrics, post-processing raw data, visualizing results, and propose sampling method for future motion predictions</li></ul>	<i>Sept. 2022 - Present</i> <i>Pokfulam, Hong Kong SAR</i>
	<b>Psuedo Lab</b> <i>Surgical Data Science Research Team member (Leader: Namkee Oh (M.D.))</i> <ul style="list-style-type: none"><li>Investigated a method to differentiate between right and left hemiliver during surgery</li><li>Proposed metric-based evaluation method of models by categorizing labeling difficulty of ground truth labels from experts</li></ul>	<i>Aug. 2022 - Nov. 2022</i> <i>Seoul, South Korea</i>
	<b>URFP (Undergraduate Research Fellowship Programme)</b> <i>Supervisor: Prof. Ping Luo</i> <ul style="list-style-type: none"><li>Experimented with a method to improve unsupervised domain adaptation approaches using masked image modeling</li><li>Assisted research project on accident-oriented autonomous driving</li><li>Participated URFP poster session</li></ul>	<i>Jul. 2022 - Aug. 2022</i> <i>Pokfulam, Hong Kong SAR</i>
WORK EXPERIENCES	<b>Psuedo Lab</b> <i>Computer Vision Paper Reading Team member</i> <ul style="list-style-type: none"><li>Reviewed and discussed papers and codes of computer vision</li><li>Presented three papers: AdaMatch, Self-Damaging Contrastive Learning and Meta Pseudo Labels <a href="#">[videos]</a></li></ul>	<i>Jul. 2021 - Nov. 2021</i> <i>Seoul, South Korea</i>
	<b>Korean Army 2nd Corps</b> <i>CERT (Computer Emergency Response Team) Squad Leader</i> <ul style="list-style-type: none"><li>Monitored 24/7 for potential cyber attack including virus, port scan and malware</li><li>Controlled several Linux servers and military security systems such as UTM and NAC</li><li>Handled potential network vulnerabilities in the military systems</li></ul>	<i>Sept. 2019 - Apr. 2021</i> <i>Chuncheon, South Korea</i>
COMPETITIONS	<b>Naver Clova AI Rush 2022</b> <i>Finalist (top 70) with 800 USD cash prize</i> <ul style="list-style-type: none"><li>Solved image classification task to classify Seoul landmarks</li></ul>	<i>Jul. 2022 - Aug. 2022</i>

- Solved recommendation task to recommend music to users of the Naver music platform

**Naver Clova AI Rush 2021**

*May 2021*

*Top 150 participants with 600 USD cash prize*

- Solved hierarchical image classification task to classify shopping images into three levels of categories with limited computational resources

AWARDS /  
CERTIFICATES

**HKU Foundation Entrance Scholarship** 2017, 2018, 2021, 2022

Received half tuition scholarship (**9,400 USD** every year) for the whole duration of undergraduate study

**Deep Learning Specialization from Coursera** 2021

**Cisco Certification Network Associate (CCNA)** 2019

**Dean's Honors List** 2018

**MOS Master 2016 Certificate** 2018

SKILLS

**Core** Python, C/C++, Linux, Java, Git,  $\LaTeX$

**Machine Learning** Numpy, Pandas, Pytorch, Matplotlib, Scikit-Learn, Tensorflow, Keras

**MLOps** Pytorch Lightning, WandB

**Web Development** Django, HTML, CSS, PHP, Node.js

**Database** SQL, MySQL, MongoDB

**Language** English (*fluent*), Korean (*native*)

- GRE: Verbal (159, 81%), Quantitative (170, 96%), Writing (4.0, 54%)
- TOEFL IBT: 107 (Reading: 30, Listening: 28, Speaking: 23, Writing: 26)

SELECTED  
PROJECTS

**Whisk(e)y Classifier** [\[report\]](#) [\[code\]](#)

*Feb. 2022 - Apr. 2022*

- Built an application to detect whiskey from self-collected and labeled whiskey datasets using MMdetection framework
- Optimized training with WandB logging, hyperparameter tuning and data quality improvement

**Deep Learning paper study** [\[code\]](#)

*Apr. 2021 - Nov. 2021*

- Reviewed deep learning research papers and codes from different fields of interest including self-supervised learning and 3D vision

**AdaMatch-pytorch** [\[code\]](#)

*Jul. 2021 - Aug. 2021*

- Implemented code of *AdaMatch: A Unified Approach to Semi-Supervised Learning and Domain Adaptation* in Pytorch
- Investigated recent breakthroughs in semi-supervised learning