Chunggi **Lee**

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Edu**cation**

Ulsan National Institute of Science and Technology   *Ulsan, South Korea*

M.S IN ELECTRICAL AND COMPUTER ENGINEERING   *Mar. 2018 - PRESENT*

- GPA : 4.2/4.3, Advisor : Prof. Sungahn Ko
- Thesis Title: GUIComp: A GUI Design Assistantwith RealTime, MultiFaceted Feedback

Ulsan National Institute of Science and Technology   *Ulsan, South Korea*

B.S IN ELECTRICAL AND COMPUTER ENGINEERING   *Mar. 2014 - Feb. 2018*

- GPA : 3.65/4.3 (Magna Cum Laude)
- Major GPA : 3.85/4.3
- Thesis Title: A Visual Analytics System for Exploring, Monitoring, and Forecasting Road Traffic Congestion.

Pub**lications**

INTERNATIONAL

P1. **Chunggi Lee**, Seonwook Park, Heon Song, Jeongun Ryu, Sanghoon Kim, Haejoon Kim, Sergio Pereira, Donggeun Yoo, **"Interactive Multi-Class Tiny-Object Detection."**, IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2022. [PDF] [VIDEO]

P2. Cheonbok Park, **Chunggi Lee**, Hyojin Bahng, Taeyun Won, Kihwan Kim, Seungmin Jin, Sungahn Ko, Jaegul Choo, **"ST-GRAT: A novel spatio-temporal graph attention networks for accurately forecasting dynamically changing road speed."**, ACM International Conference on Information and Knowledge Management (**CIKM**), 2020 (20.9% acceptance rate). [PDF]

P3. **Chunggi Lee**, Sanghoon Kim, Dongyun Han, Hongjun Yang, Young-Woo Park, Bum Chul Kwon, Sungahn Ko, **"GUIComp: A GUI Design Assistantwith RealTime, MultiFaceted Feedback"**, ACM CHI Conference on Human Factors in Computing Systems (**CHI**), 2020, Accepted. [PDF] [Preview Video] [VIDEO]

P4. **Chunggi Lee**, Yeonjun Kim, Seungmin Jin, Dongmin Kim, Ross Maciejewski, David Ebert, and Sungahn Ko, **"A Visual Analytics System for Exploring, Monitoring, and Forecasting Road Traffic Congestion."** IEEE transactions on visualization and computer graphics (**TVCG** IF=4.579), 2019 (Proc. **IEEE VIS'19**), Accepted. [LINK] [PDF] [VIDEO][NEWS1] [NEWS2] [NEWS3]

P5. Juyoung Oh, **Chunggi Lee**, Hwiyeon Kim, Kihwan Kim, Osang Kwon, Eric D. Ragan, Bum Chul Kwon, Sungahn Koo, **"An Empirical Study on the Relationship Between the Number of Coordinated Views and Visual Analysis."**, Arxiv. [PDF]

P6. **Chunggi Lee**, Juyoung Oh, Seungmin Jin, Isaac Cho, and Sungahn Ko, **"A Graphical Workflow Exploration Environment For Visual Analytics."**, Arxiv. [PDF]

DOMESTIC

D1. J. Lee, K. Kim, **C. Lee**, and S. Ko, "Visualization based Deep Learning Analysis Technology." The Korean Society for Noise and Vibration Engineering (KSNVE), 2017, Accepted. [LINK] [PDF]

D2. Y. Oh, **C. Lee**, J. Oh, J. Yang, H. Gwag, S. Moon, S. Park, and S. Ko, "Introdcution of Visual Analytics." Korea Computer Graphics Society, 2016, Accepted. [LINK] [PDF]

Pro**fessional Experience**

Lunit Inc.   *Seoul, South Korea*

RESEARCHER ENGINEER (ALTERNATIVE MILITARY SERVICE) [LINK]   *Mar 2020 - Present*

- Designed and built interactive object detection and segmentation deep learning models for reducing cost of annotations. (P1)
- Implemented an annotation tool and internal operation tool with Django, DRF, and React.
- Analyzed quality of pathology data which have significant different among experts and proposed a new method for gaining pathology larg-scale dataset

Interactive Visual Analysis & Data Exploration Research Lab   *Ulsan, South Korea*

RESEARCHER & DEVELOPER [LINK]   *Jun 2016 - Mar 2020*

- Built interactive tools and visual analytic systems for mobile GUI design authoring for novice (P3), traffic congestion forecasting and propagation (P4), multiple coordinate visualization (P5), and gene expression (P6).
- Implemented spatio-temporal deep learning models (P2), mobile GUI recommendation deep learning, biomedical data clustering

Pre**sentation**

Naver TechTalk   *Seoul, South Korea*
<small>PRESENTER FOR <DEEP LEARNING MODEL FOR TRAFFIC FORECASTING></small>   *Aug. 2019*

- Introduced Deep Learning Model for Traffic Forecasting - DCRNN, LCRNN, STGCN, and GAAN [PDF]

Honors & Awards

2017	**4th Place & Bronze Prize,** National Super Computing Competition	*Ulsan, South Korea & KISTI & UNIST*
2017	**3rd Place & Bronze Prize,** Naver UNIST Undergraduate Poster Award '17 UNIST $1,500 [POSTER]	*Naver & UNIST*
2016 & 2017	**Semester GPA 3.94/4.3, GPA 3.93/4.3,** Semester Academic Excellence Award for 2016 Fall Semester, 2017 Fall Semester	*UNIST*
2016	**3rd Place,** HeXAThon, Develop Customization Interior Design VR Application, Received an award of $500	*Ulsan, South Korea & NAVER*
2016	**3rd Place,** Competition of Using Public Data of Ministry of Trade, Industry and Energy, Develop Emotional Color Combination VR Application, Received an award of $1,000	*Seoul, South Korea & Ministry of Trade, Industry and Energy*

Skills

- **Language** : Python · JavaScript · HTML/CSS
- **DeepLearning** : Pytorch · TorchServe
- **Back-end** : Django · DRF · Fast API · MySQL
- **Front-end** : React · Material-UI
- **Language** : Korean · English

Patent

- **Traffic Information Visualization Analysis Device and Method** – Application Number : 10-2018-0079727