

Junu Kwon

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Education

- Mar 2022– **Seoul National University.**
Current *College of Liberal Studies.*
GPA – 4.24/4.3
- Mar 2019– **Gyeonggi Science High School.**
Feb 2022 *Math, Science & Informatics.*
GPA – 4.0/4.3

Experience

- Jul 2022– **MLOps Engineer, FriendliAi, SNU.**
Current
 - Kubernetes cluster orchestration for AI inference servers
 - Cloud Platform integration (AWS, GCP, Azure)
 - Unit, E2E tests (Python, FastAPI)
 - Issue, Bug tracking with Jira, Git & Slack
- Feb 2022– **Software Developer, Bigteam Inc.**
Jun 2022
 - Database management, Oracle SQL
 - eGovFramework developer (Java Spring)
 - Web server deployment via Jenkins
 - Software integration contract with *Seoul National University IST, 정보화본부*
- May 2019– **Server Administrator, Gyeonggi Science High School.**
Feb 2022
 - GPU server admin - managed CUDA, Python environments for research [Link]
 - Web server admin - managed [Link 1], [Link 2]
 - Deployed Contest Systems and OJs for school programming contests using GCP and Azure
 - Augmented sandbox and advanced evaluation system for KOISTUDY [Link]
 - Published Linux/Server manual and courses for beginners [Link]
- Jul 2019– **Mentee, International Olympiad in Informatics Summer Camp(국제정보올림피아드 여름학교).**
Aug 2019
 - Organized by *Korean Institute of Information Scientists and Engineers*
 - C/C++ problem solving algorithm class

Researches

- Jan 2021– **Quant. and Pruning Methods for Compressing Obj. Detection Networks [Paper], Grad. Thesis.**
Oct 2021
 - Compressed two major object detection networks, YOLOv3 and FasterRCNN using PyTorch
 - Applied iterative compressing methodologies in order to maintain accuracy (5% for each iteration)
 - FasterRCNN: reduced to about 20% size while maintaining the original mAP, x13.1 speed
 - YOLOv3: reduced to about 25% size while maintaining the original mAP, x5.3 speed
 - Used school server with Google Cloud Platform (Nvidia V100)
- Mar 2020– **Compressing YOLO via Quantization and Pruning [Code], Assistant Prof. Jae-Pil Heo, SKKU.**
Dec 2020
 - Integrated YOLOv3(Redmond et al.) using PyTorch
 - Compressed using quantization and pruning
 - Reduced about 38% size while maintaining 90% of the original mAP
 - Accelerated the calculation about 4.2 times
 - Recieved *Silver* medal at 16th Asia-Pacific Conference on Giftedness
- Mar 2019– **3D Image Segmentation Program Using Quantization or BFS [Paper], Self-motivated.**
Oct 2020
 - Both Breadth-First-Search and Quantization methods for removing the plane from a scanned 3D Image
 - 48th Fall Comprehensive Conference, *Korea Institute of information and Communication Engineering*

Projects

- Feb 2022– **Data Portal System Integration**, *Bigteam Inc., SNU IST(정보화본부)*.
Jun 2022
 - System Integration task for an open data portal
 - eGovernment Framework(Java Spring) with Oracle database management
 - User interface design for administrator website
 - Cooperative task using Subversion and Redmine.
- Jan 2020– **GSHS CSLAB [Link]**, *Self-motivated, Founder*.
Feb 2022
 - Server Management Group of Gyeonggi Science High School
 - Server Administration (Nvidia Tesla K40c gpus)
 - Documentations for using servers [Link]
- Mar 2019– **Contest Management System**, *Self-motivated*.
Oct 2018
 - Wrote Documentations for the Contest Management System
 - Made packages and install scripts for CSL [Link]
- Jul 2020– **New Koistudy**, *Self-motivated, PM*.
Dec 2021
 - Replacing or enhancing the old Koistudy website
 - Lectured php/html lessons and wrote database queries
- May 2021– **ServerTools [Link]**, *Self-motivated*.
Jun 2021
 - JavaFX-based server resource monitor with SFTP and an embedded web browser
 - Used for school server management
- Mar 2019– **Translations & Documentations**, *Self-motivated*.
Ongoing
 - Contest Management System translation & documentation [Link]
 - VJ4 translation [Link]
 - Hydro translation [Link]
 - QingdaoU OJ translation [Link] [PR]

Achievements

- May 2022 **Presidential Science Scholarship**, *대통령과학장학금*.
 - USD 50,000 equivalent
- Apr 2022 **National Science & Technology Scholarship**, *이공계국가우수장학금*.
 - Renounced due to the Presidential Science Scholarship
- Jul 2021 **Korea Olympiad in Informatics, 2nd Round**, *Bronze*.
 - Ranked 73 among 205 contestants(TOP 35.61%) in 2021년 한국정보올림피아드 2차대회 고등부
 - Used C/C++
- May 2021 **Korea Olympiad in Informatics, 1st Round**, *Silver*.
 - Ranked in the TOP 3.614% in 2021년 한국정보올림피아드 1차대회 고등부 전체응시자부문
 - Used C/C++

Skills

- Languages Python, C/C++, Java, SQL
Frameworks PyTorch, Tensorflow, CUDA
Web Server Ubuntu, Nginx, Apache, Docker, GCP
Utilities Anaconda, Jupyter Notebook, Git, SVN
English New TEPS(474)

Relevant Courses

- GSHS Linear Algebra(AP), Calculus(AP), Number Theory, Object-Oriented Programming(AP), Computer Programming, Informatics Project, Informatics Seminar, Algorithm
SNU Core Computing: Thinking with Computers (컴퓨팅 핵심), Calculus 1 (수학 1)