JaeJoong **Lee**

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Education

Purdue University *West Lafayette, IN, USA*

Bachelor of Science in Computer Science *Aug. 2015 - May. 2018*

- Cumulative GPA: 3.74 / 4.00, Dean's List: All semesters
- Relevant Courses: Deep Learning in Computer Vision(A+), Tensors in Deep Learning(A+), Deep Learning for Prediction(A+), Data Structures And Algorithms(A), Analysis Of Algorithm(A), Image Processing In App(A)

Work Experience

Headquarters and Headquarters Battalion, Eighth Army, U.S. Army *USAG Humphreys, S.Korea*

Interpreter, Corporal *Nov. 2018 -Jul. 2020*

- Served as an interpreter for Group Commander as a member of Korean Augmentation to the United States Army.

Binded *San Francisco, USA*

Software Engineer Intern [link] *Jun. 2017 - Aug. 2017*

- Implemented RESTful API benchmark server using Docker, Flask, ElasticSearch and CircleCI.
- Built RESTful API server for auto copyright registration system through Office of Copyright using Docker and Flask.
- Crawled all 5M copyright records from Office of Copyright and analyzed its trends using postgreSQL and Python3.

Dr.Kitchen *Seoul, S.Korea*

Back-end Software Engineer *Jun. 2016 - Aug. 2016*

- Designed all database schemes and held meetings to collect required functions from each department with A/B test from users
- Implemented ordering, shipping tracking, customer service system and Payment Gateway API server using Django, postgreSQL and AWS

HelloCoach *Berlin, Germany*

Software Engineer Intern *Jan. 2016 - May. 2016*

- Implemented Invitation function and automated testing scripts in hybrid mobile application using Cordova, Ionic and Angular JS
- Built Language Translation module to provide service in different countries

Research Experience

Cloud Computing, Machine Learning, And Network Research Lab *Purdue University*

Undergraduate Research Assistant (Professor Aggarwal Vaneet) *Feb. 2017 - July. 2019*

- Conducted experiments to collect Photoplethysmography(PPG) signals and videos from subjects using attached sensors
- Modified facial feature algorithm in DeepFace to get extra landmarks using Python3 and OpenCV
- Implemented algorithm to extract peaks in custom range of PPG signals
- Created deep neural network by tuning parameters with Grid Search in Tensorflow and Keras to get 98% accuracy with GPU

Applied Optics Lab *Purdue University*

Undergraduate Research Assistant (Professor Euiwon Bae) *Aug. 2016 - Present*

- Built model to classify multi-labeled mushrooms using Tensorflow and Keras and deployed model to Android application using TFLite
- Implemented real-time 2D mobile spectrometer using signal, image processing in Android Application using Java
- Designed lateral flow assay(LFA) Android application using Linear Algebra and image processing, and SQLite
- Developed Android application to get freshness of meat using OpenCV and contour extraction algorithm in Android

Publications

A Computer Vision Approach for Classifying Isometric Grip Force Exertion Levels

Hamed Asadi, Guoyang Zhou, **Jae Joong Lee**, Vaneet Aggarwal, Denny Yu *2020*

- Forthcoming and accepted to Ergonomics

Smartphone-based lateral flow imaging system for detection of food-borne bacteria

Youngkee Jung, Yoojung Heo, **Jae Joong Lee**, Amanda Deering, and Euiwon Bae *2019*

- Journal of Microbiological Methods, Article in Press, [doi:10.1016/j.mimet.2019.105800]

Skills

DevOps	AWS, Docker, CircleCI, Github
Back-end	Django, Flask, Node.js
Front-end	React.js, Vue.js
Programming	Python3, Java, Android, Keras, Tensorflow, JavaScript
Languages	Korean, English