Sungwoo Lee

Junior Developer

swlee052@gmail.com

linkedin.com/in/swlee23

github.com/swlee23

EDUCATION

BS in Computer Science and Physics

Ulsan National Institute of Science and Technology (UNIST)

2014 - 2021

LANGUAGES

Korean (Native)

English (Fluent)

CAREER PROFILE

A passionate developer with a strong foundation in CS core subjects such as object oriented programming, data structures, algorithms, computer networks, operating systems and so on.

Key strengths in strong mathematical and analytical thinking skills, and abundant research experience gained from educational background and internship experiences. An easily motivated individual in research-oriented tasks, solving challenging problems, and contributing to the society with proficient technical abilites.

Computer Science Coursework: Object Oriented Programming, Basic Circuit Theory, Data Structures, Discrete Mathematics, Digital Logic, Probability and Random Process, System Programming, Algorithms, Computer Networks, Programming Languages, Computer Architecture, Artificial Intelligence, Software Engineering, Mobile Computing, Operating Systems

Physics Coursework: Calculus I & II, Linear Algebra, Applied Linear Algebra, Classical Mechanics, Electromagnetism I & II, Modern Physics, Differential Equations, Physics Lab I & II, Mathematical Physics, Number Theory, Thermal and Statistical Physics, Quantum Physics I, Mathematical Modeling and Applications

EXPERIENCES

Data Engineer (Intern)

JUN 2019 - DEC 2019

ITS, Ulsan, South Korea

Researched and analyzed state-of-the-art ML/DL algorithms in time series data analyses, such as anomaly detection, forecasting, and classification. Implemented querying data from the database, preprocessing, feature engineering, visualization and analyzation. of industrial time series data using ML/DL algorithms with libraries such as scikit-learn and TensorFlow.

Research Assistant (Intern)

SEP 2015 - JUN 2016 / SEP 2018 - JUN 2019

Nanostructured Polymer Materials Theory Lab (UNIST), Ulsan, South Korea

Implemented a Monte Carlo simulation code for a statistical and computational physics model called Ising model and investigated its physical characteristics regarding phase transition. Also, researched optimization methods utilizing various algorithms for better performance and visualization methods.

PROJECTS

ProtectedHaven - A web application that assists foreigners living in Korea report criminal activities to the police department in urgent situations. The web application recieves the user's geolocation, personal information and the details of the report and sends an email to the relevant police department. Contributed by writing code that collects the user's geolocation and synchronizes the database and the excel file for logging the reports. (https://github.com/swlee23/ProtectedHaven)

SKILLS

- C/C++
- Python
- Java
- Linux
- MySQL / PostgreSQL
- ML / DL