우륭

희망직무 : Software Engineer, Data Scientist

(+82) 10-4135-7108 | wooheaven79@gmail.com | wooheaven | wooheaven | 륭-우-67a66290

"저는 더 좋은 수학자와 팀플레이어로 성장하고 싶습니다."

Summary

저는 개발자로 6년동안 수학자와 팀플레이어로 성장해왔습니다. 저는 퍼즐게임처럼 논리적이고 절차적으로 생각하는 것을 즐깁니다. 처음에는 저는 작은 조각에 집중합니다. 제가 퍼즐의 완벽한 그림을 빨리 예측할 수록 더욱 빠르게 퍼즐을 풀 수 있습니다. 저는 대학 농구팀 선수처럼 열정적으로 협동하는 것을 즐깁니다. 저는 게임중의 작전시간이든 게임전 훈련시간이든 상관없이 팀원과 아래처럼 토론을 많이 했습니다. 무엇이 필요한지, 어떻게 적용할지, 어떤 것이 더 좋은지, 결국 그런 결정이 우리팀에게 도움이 될지. 저는 더 좋은 수학자와 팀플레이어로 성장하고 싶습니다.

Experience

BISTel, Co.

서울특별시 서초구

Software Engineer, Data Scientist

2013년 11월 - 현재, 5년 10개월

- IT의 최신기술과 학계의 새로운 논문을 연구하여 팀에 공유합니다.
- 외부 고객과 내부 이해관계자들의 요구사항을 수집하고 정의합니다.
- 위에서 언급한 기술과 논문과 요구사항에 따라서 제품을 개발하거나 업그레이드합니다.
- 제품을 고객에게 배포하고 고객의 문제를 배포된 제품을 통해서 고객이 스스로 해결할 수 있도록 안내합니다.

한국정보공학 (주)

성남시 분당구

Internship

Sep. 2013 - Oct. 2013, 2 months

- 출시될 제품기능에 대한 품질을 확인합니다.
- 사용자 관점에서 제품사용문서를 수정합니다.

Education

Daejin University, Ministry of education, science and technology

Seoul, S.Korea

Completion of course, Hadoop expert for bigdata storage and management based on cloud computing

May. 2013 - Aug. 2013, 4 months

- Because I completed this course well, I was able to participate in the internship.

College of Education, Kangwon National University

Chuncheon, S.Korea

Bachelor of Science, Mathematics Education

Mar. 2004 - Feb. 2012

- Scholarship on 1st year 2nd semester, 3rd year 2nd semester.
- Semi runner up of college basketball competition on 2nd year.

Project

Develop eDataLyzer

Seoul, S.Korea

Software Engineer, Data Scientist

Nov. 2013 - Present, 5 years 10 months, more than 30 M/M

- The eDataLyzer is a existing semiconductor analytics product for wafer yield map classification and root cause correlation.
- The goal of this project is to redevelop the eDataLyzer for big data.
- So we have led this project in three ways.
- 1st, reconstruct the architecture to micro services from monolithic one.
- 2nd, reorganize to a role based teams from a unified team.(Client, Server, Algorithm, Research, Technical Sales/Support.)
- 3rd, redevelop by Java and C# not only C#
- I belong to Algorithm team, mainly focusing on parallelizing algorithm by new big data technologies.
- In briefly, I have done three ways of parallelizing algorithms.
- 1st, I had redeveloped the algorithms by Java, PostgreSQL, Spring for small data clients.
- 2nd, I had redeveloped the algorithms by non Hadoop based technologies.(GreenPlumDataBase PL/Java, Oracle-R)
- 3rd, I had redeveloped the algorithms by Hadoop based technologies.(Hadoop, BDA, Hawq, HBase, Spark, Eco system)
- In this project, we have a lot of semiconductor clients as follows.
- Korea: Samsung Electronics, SKHynix, SKSiltron, Japan: Toshiba, Sharp, Taiwan: TSMC, China: BOE
- And the project types are PoC, pilot, production.

Research to Apply Reinforcement Learning on Semiconductor

Seoul, S.Korea

Researcher, Software Engineer

Dec. 2018 - Present, 9 months, 6 M/M

- The goal of this project is to apply reinforcement learning on semiconductor and share the experience with team.
- I pick up 8-Puzzle as a environment for reinforcement learning.
- Here's why I pick up it in details.
- 1st, in order to collaborate with teammates, I need to find the generalized environment is easy to apply Graph Theory.
- So I pick up operation management of production on semiconductor.
- 2nd, in order to find suitable environment not complex one, I pick up 8-Puzzle.
- Focus on shortest path not yield, productivity, stability, automation rate, etc.
- The recent research situation is as follows.
- 1st, solve 8-Puzzle by Dynamic Programming
- 2nd, fail to solve 8-Puzzle by QLearning, Deep SARSA, Polish Gradient.
- The rest of the research is to find out why and how to overcome it.

Develop Matrix Profile on Transfer System

Seoul, S.Korea

Software Engineer

Jul. 2017 - Dec. 2017, 6 months, 2 M/M

- The goal of this project is to predict a shutdown of motor based on time series sensed data.
- Client's product-lines(blue-collars) found out a shutdown once a year and hate this problem.
- But both client's office-lines(white-collars) and our previous algorithm didn't predict it.
- Because the algorithm focus on a vibration analysis on rotationary machine.
- So we created this project as a subproject of the previous one and led this project as below.
- 1st, we found out the matrix profile which is a suitable algorithm for time series predict.
- 2nd, I implemented the algorithm in python and deploy it to client. And solve the problem successfully.
- 3rd, I implemented it in java and integrate with UI. Teached clients how to solve their problem through our product.
- The client of this project is Hyundai Motor. And the project type is PoC.

Develop Predictive Maintenance on Semiconductor

Seoul, S.Korea

Software Engineer

Nov. 2016 - Mar. 2017, 5 months, 4 M/M

- The goal of this project is to provide predictive maintenance on semiconductor's etching tools.
- In order to change client's empirical maintenance(condition, time), we led this project as below.
- 1st, redefine input data through Self Organizing Map. And define health score as distance of each vectors of input data and observation vector.
- 2nd, apply Double Exponential Weighted Moving Average to the health score. And get Remaining Useful Life for each vectors of input data.
- But we got a feedback that our product was too late for client. So we additionally led this project as follows.
- 1st, detect the bottle neck of our product as the DEWMA not the SOM.
- 2nd, apply Spark and HDFS on the DEWMA. And find out a tuning point.
- The client of this project is SKHynix. And the project type is pilot.

QA & Documentation on new Product

Seongnam, S.Korea

Internship

Aug. 2013 - Oct. 2013, 3 months, 5 M/M

- During the internship, I did the following activities.
- 1st, quality assurance for each feature on new product.
- 2nd, modify the previous document by the user's perspective.

Skills

Programming	Java, SQL: 6 years on production, Python: 2 years on papers research.
Backend	Spring Frameworks: a year on production.
Database	PostgreSQL: 6 years on production, Oracle, HBase: a year on production.
Bigdata	GPDB: 6 years on production, Hadoop, Spark: 4 years on production.
ML/AI	Nvidia CUDA, Keras, Tensorflow: a year on papers research.
DevOps	Linux, Docker, On premise Cloud(KVM), Public Cloud Azure, AWS: Use these as utility tool on projects.
Research	Read and implement the latest papers by python.
Leadership	Lead projects successfully for a year.
Communications	Communicate smoothly with various stakeholders (aggresice client, academic advisor for government, etc).
Languages	Native in Korean, Limited working proficiency in English.

Objective

Technical Account Manager(734104), Associate Solutions Architect(843420) of AWS
Technical Trainer(797765), Senior Data Scientist(695795) of AWS