Sangwoo Kim

Education

Mar.2010– Feb.2014 **B.S. in Computer Science and Engineering**, *Seoul National University*, Seoul, Korea.

Experience

Oct.2021 – Present **Quantitative Researcher**, *Schperics*, Seoul, Korea.
- Focused on the development of the research and trading platform.
  - Developed high performance strategy simulator in Rust which helps researchers to reperesent their ideas in graph format.
  - Constructed infrastructures on AWS which achieves high reliabliliy and availability based on Terraform.
  - Developed matrix-like database manangement interface which supports efficient appending of daily data for live trading.

Oct.2020 – Oct.2021 **Project Manager**, *KIDB Money Brokerage Co.*, Seoul, Korea.
- Focused on the developement of the bond trading platform project.
  - Constructed network and service architecture on AWS which includes ECS, lambda and S3 located in appropriate VPCs and subnets, according to financial regulations based on Terraform.
  - Developed bond database management api with python and corresponding interface with nextjs and react.
  - Submitted 3 patents regarding platform structure and special functionalities of making orders.

Jul.2020 – Aug.2020 **Vice President, Research**, *WorldQuant*, Seoul, Korea.
- Focused on the development of the in-house US fundamental dataset which parses SEC filings directly.
  - Achieved faster data retrieval and better accuracy.
  - Researched consistent analysis methodology of financial statements across different companies in different sectors and industries.

Jan.2018 – Jul.2020 **Senior Quantitative Researcher**, *WorldQuant*, Seoul, Korea.
- Focused on the development of statistical arbitrage strategies which achieves high capacity and low impact.
- Researched portfolio optimization method based on mean-variance analysis and conditionl value at risk.
- Researched specialized operations which adjusts turnover, balances long-short, improves liquidity.
- Worked as an advisor for several researchers globally.

Oct.2016 – Jan.2018 **Quantitative Researcher**, *WorldQuant*, Seoul, Korea.
- Focused on the development of statistical arbitrage strategies within global markets.
  - Researched low turnover signals using fundamental, analyst estimates datasets.
  - Researched medium turnover, high sharpe signals using social media, sentiments datasets.
- Researched meta strategies which combines company signals to achive better performance criteria.
  - Researched signal scoring scheme to filter high quality signals from company signal pool.
  - Built strategy by combining signals with mean-variance based optimization.

Dec.2015 – Oct.2016 **Quantitative Developer**, *WorldQuant*, Seoul, Korea.
- Improved and maintained in-house fundamental dataset, which achieves better reliabliliy by combining datasets from different vendors
- Developed dataset production monitoring system which monitors dataset coverage and turnover

Mar.2014 – Dec.2015 **Software Engineer**, *R.O.K. Cyber Command*, Seoul, Korea.
- Developed real-time chatting service using vertex in Java, Scala and AngularJS
- Improved emergency response system which broadcasts instructions from command to lower units in Java servlet

Awards & Honors

May.2011 **42nd Place**, *The 35th Annual ACM-ICPC World Finals*.

Oct.2010 **Gold medal**, *The 10th Korean collegiate programming contest*.

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