BIN CHOI

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LinkedIn | GitHub

SKILLS

- Go | Python | Java | Scala | OCaml | MySQL | NoSQL | Elasticsearch | Docker | Kubernetes | Prometheus, Thanos
- AWS | Cloud Computing | CI/CD | R, MATLAB | TensorFlow, scikit-learn | Linux | Redash, Tableau | Airflow
- Microservices | Distributed Systems | Backend | Systems Architecture | Korean, English – *all native proficiency*

EXPERIENCE

Software Engineer **Buzzvil** **2022.06 | 2024.06**

- Designed and developed scalable APIs on enterprise-level microservices using Go (Echo) and Python (Django), serving billions of daily ad requests while optimizing key advertiser metrics such as ROAS and User Acquisition.
- Led the backend development of a flagship offerwall product E2E, from identifying system requirements and dependencies to software implementation, unit/load testing, configuring monitoring tools, deployment, and production troubleshooting. The product generated $30 million of revenue in its first year of release.
- Developed back-office A/B testing platform that ensures statistical equivalence in key metrics between control and treatment groups, empowering teams across the company to independently conduct precise, reliable tests.
- Engineered a scalable, high-capacity product catalog crawling system with Python and SQL to extract and process multi-format data from diverse e-commerce advertisers, enabling timely synchronization with their product catalogs and personalized recommendations based on user behavior.
- Constructed robust data pipelines using Fluentd, Apache Airflow, Athena, and Argo Workflows to deliver critical performance metrics such as bounce and engagement rates to publishers, thereby reinforcing client relationships through transparent, data-centric insights.

Software Engineer **Clinical NLP Lab** **2024.06 | Present**

- Led software development and collaborated with four post-doc researchers to develop an advanced, multi-level topic annotation system for *BIKE*, a biomedical knowledge visualization tool, using hierarchical, density-based clustering algorithms and efficient topic modeling methods.

EDUCATION

YALE-NUS COLLEGE **2019 | Present**

BSc (Hons) *in Mathematical, Computational, and Statistical Science (conc. in CS)* **Singapore**

- *Yale-NUS Global Leader Scholar* – merit-based, full scholarship awarded to only eight students since inception.
- *Yale-NUS & Duke-NUS Liberal Arts and Medicine Pathway* – early admission to post-graduate MD program. Jointly awarded by Yale-NUS College and Duke-NUS Medical School, this pathway was selectively offered to four Yale-NUS students in 2019.
- Relevant Coursework: Quantitative Reasoning; Introduction to Computer Science; Proof; Data Structures and Algorithm; Probability; Parallel, Concurrent, and Distributed Programming; Introduction to Computer Network; Programming for Data Science [GPA: 4.85/5.00]

COLUMBIA UNIVERSITY **2024.08 | 2024.12**

Exchange student at Columbia Engineering **New York, USA**

AALTO UNIVERSITY **2022.01 | 2022.06**

Exchange student at School of Computer Science **Helsinki, Finland**

- Completed master's degree courses in the Department of Computer Science and School of Business.
- Relevant Coursework: Software Engineering; Introduction to Artificial Intelligence; Databases; Machine Learning with Python; Thinking Tools; Impact and Argumentation; Web Software Development [GPA: 5.00/5.00]

RESEARCH PROJECTS

- **Biomedical Knowledge Visualization System – BIKE** (05.2024~08.2024). Contributed to the development a LLM and visual analytics-based approach to explore the semantic embedding space of medical publications and patient data. Supervisor: Dr. Hua Xu, Yale School of Medicine [Video]
- **Xenograft Project** (05.2021~08.2021). Assessed and developed methods to quantify gene expression in xenograft models. Presenter at Yale-NUS Summer Research Symposium
- **Computational Biology – Independent Study** (12.2020~05.2021). Analyzed transcriptome signatures of various cancers using gene expression heat-maps, AUC curves, and precision-recall graphs in R and Python.
- **Parallel, Concurrent, and Distributed Programming** (08.2021~11.2021). An exploration of Parallel, Concurrent, and Distributed Programming using Scala. [Portfolio | Code]

ADDITIONAL EXPERIENCE AND AWARDS

- Yale-NUS Global Leader Scholarship: merit-based full scholarship ($56,400 / year)
- Yale College Dean's Research Fellowship ($5000)
- Skilled Industrial Personnel – Software Engineering (R.O.K. Military Manpower Administration)
- Programming for Education and Leadership in Afghanistan (Founder)
- Secondary School: Valedictorian; Student Council President; MUN President; TEDx (Host), Winner of Qatar National Music Competition