

# BIN CHOI

Portfolio: [binchoi.github.io/projects](https://binchoi.github.io/projects) · GitHub: [binchoi](#) · LinkedIn: [binchoi](#) · Email: [binchoi@u.yale-nus.edu.sg](mailto:binchoi@u.yale-nus.edu.sg)

## EDUCATION

### National University of Singapore (Yale-NUS College)

*BSc (Hons) in Computer Science* · GPA: 4.85/5.00

July 2019 ~ May 2025\*

Singapore, Singapore

- *Yale-NUS Global Leader Scholar* – merit-based, full scholarship awarded to only eight students since inception.
- *Liberal Arts and Medicine BS/MD Pathway* – one of four students offered early admission to postgraduate MD program.  
\* *Leave of Absence (2022-2024) for full-time employment*

### Columbia University

*BSc (Hons) in Computer Science (Exchange)* · GPA: 4.0/4.0

August 2024 ~ December 2024

New York, NY

- Teaching Assistant for *Advanced Software Engineering* (COMSW4156): grading assignments, leading office hours, and providing academic support to 160 graduate and senior undergraduate students.

## EXPERIENCE

### MedViz (Yale School of Medicine)

*Software Engineer · Internship*

June 2024 ~ Present

New Haven, CT

- Designed and deployed a data pipeline using Apache Airflow, Docker, Redis, and RabbitMQ to automate semantic map generation, increasing processing capacity by **25 times** and reducing end-to-end latency by **70%**. ([link](#))
- Led the development of a multi-level topic discovery system for a biomedical literature visualization tool (JavaScript) and increased topic uniqueness by **45%** with an innovative tree-based topic modeling algorithm.

### Buzzvil

*Software Engineer (Server) · Full-time*

June 2022 ~ June 2024

Seoul, South Korea

- Led the backend development of a novel offerwall product *BuzzBenefit (Web)*, from identifying system requirements and dependencies to software implementation, load testing, configuring monitors, deployment, and production troubleshooting, driving **\$30 million** of revenue within the first-year post-launch. ([link](#))
- Designed and developed scalable APIs on enterprise-level microservices (Python, Go), serving **billions** of daily ad requests across **more than 95% of mobile devices** in South Korea, while optimizing key advertiser metrics such as Return on Ad Spend and User Acquisition.
- Ported **10,000+ lines** of legacy code to merge an under-maintained microservice into a modular monolith, enhancing code consistency, reliability, and maintainability. Collaborated with CTO and tech leads on RFCs, design docs, and test plans.
- Achieved a **60% reduction** in budget overruns for high traffic burst campaigns by engineering an innovative budget pacing system inspired by Proportional–Integral–Derivative (PID) controllers.

## SKILLS

**Stakeholder Management:** Direct engagement with internal stakeholders and external partners, from startups to big tech.

**Collaboration:** Effective teamwork across departments and clients, driving success through cross-functional collaboration.

**Project Management:** Establish product roadmaps and coordinate development schedules to meet business objectives.

**Languages:** English, Korean – *native*; Mandarin – *elementary proficiency*

## TECHNICAL SKILLS

**Programming Languages:** Python, Java, Go, JavaScript, R

**Databases:** MySQL, DynamoDB, Elasticsearch

**Messages & Streaming:** Kafka, RabbitMQ, Redis

**Monitoring & Logging:** Prometheus, Grafana, Loki, Datadog

**Documentation:** API Spec, PRD, RFC, SLA, Design Docs

**DevOps & Infra:** AWS, Docker, Kubernetes, Linux

**Data Engineering & Analytics:** Airflow, Redash, Athena

**Misc:** Microservices, Domain-Driven Design, Design Patterns

## AWARDS

- *AWS 2024 All Builders Grant* (\$4000) for demonstrating strong potential as a future technical leader
- *Best Poster Award* nomination at IEEE American Medical Informatics Association's 15<sup>th</sup> Visual Analytics workshop
- *Yale College Dean's Research Fellowship* (\$5000)
- Languages: Korean, English – *all native proficiency*