




Michael Jae-Yoon Chung

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SUMMARY

I'm a robotics software generalist. I work between robotics, devops, webdev, and product to find and address high-impact problems, vertically. That said, I'm currently interested in robotics application, simulation, and devtooling-related problems.

EXPERIENCE

HIL Engineer 2024-Present
Motional Seattle, WA (Remote)

- Contributed to designing and implementing a new hardware-in-the-loop testing infrastructure.

Senior Robotics Engineer 2021 – 2023
Intrinsic/Vicarious (Vicarious was acquired by Intrinsic in May, 2022) Seattle, WA (Remote)

- Worked on an intelligent robotics platform, e.g., (1) IDE-based developer tools and (2) simulation-aided testing tools.
- Led the effort to adopt service-oriented architecture to deployed robot applications and then collaborated to deliver human-machine interface integration, containerization, and application management command-line tools.
- Collaborated with Grasping, Motion Planning and Control teams to design, plan, and adopt service-oriented architecture on deployed components to improve application initialization/execution speed, robustness, and isolation.
- Designed and prototyped Hardware-in-the-Loop-like testing tools for multi-robot production line applications.

Robotics Application Engineer 2016 – 2018
Saviok San Jose, CA

- Contributed to developing and maintaining on-board and desktop application backends (e.g., single and multi-robot behavior management systems) and support infrastructure (e.g., configuration and notification management systems) that were deployed to 50+ mobile robots.
- Deployed a non-roboticist-friendly robot programming system and used it for collaborating with partner companies including an airport management company in Southeast Asia.
- Explored new mobile robot applications using techniques adopted from product design research, which resulted in beta applications and academic publications.

Research Assistant 2018 – 2020 & 2011 – 2015
University of Washington Seattle, WA

- Designed, built, and 3+ evaluated robot programming systems for non-roboticist developers with inspirations drawn from programming languages research and web development communities' work.
- Built, deployed, and maintained 3+ end-to-end mobile robot and robot manipulator applications reusing existing perception, planning and control, and UI components; evaluated the applications by conducting user studies.
- Recruited, trained, and mentored 14 undergraduate students and co-authored 5+ academic papers with 7 of them; two students started their own research projects which resulted in academic publications.

EDUCATION

Ph.D. Computer Science & Engineering, University of Washington (2020)

Master of Science Computer Science & Engineering, University of Washington (2014)

Bachelor of Science Computer Science, University of Washington (2010)

SKILLS

Knolwedge : Robotics Software Architecture, Distributed Systems, Simulation Tools, DevOps, Developer Tooling, Web Development, Requirement Elicitation, Project Planning, User Research & Study

Tools : PL (e.g., Python, C++, JavaScript, Go), Math (e.g., numpy, Eigen), Robotics Infra (e.g., Linux, ROS) and Arch (e.g., SOA, FSM), IPC (e.g., gRPC, WebSocket), DevTools (e.g., git, Bazel, Docker), WebDev (e.g., Node.js, ReactiveX, React)

Languagues : English (fluent), Korean (native)