Michael Jae-Yoon Chung

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SUMMARY

I'm a robotics software generalist. I work between robotics, DevOps, web development, and product to find and address high-impact problems, vertically. That said, I'm currently interested in problems in scaling robotic systems, such as framework/integration problems or developer tooling for large-scale development, deployment, and testing.

EXPERIENCE

Senior Robotics Engineer 2020 – 2023

Intrinsic/Vicarious (Vicarious was acquired by Intrinsic in May, 2022) Seattle, WA (Remote)

- Worked on an intelligent robotics platform. Focused on IDE-based developer tooling, e.g., development, deployment, and simulation-based testing tools.
- Led the effort to adopt service-oriented architecture on deployed robot applications and then collaborated to deliver human-machine interface integration, containerization, and application management command-line tools.
- Collaborated with Grasping and Control team (separately) 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 simulation for testing robot fleet-level applications.

Robotics Applications Engineer 2016 – 2018

Savioke San Jose, CA

- Contributed to developing and maintaining on-board and desktop application backends (e.g., a single and multi-robot behavior management system) 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 and deployed end-to-end mobile robot and robot manipulator applications involving perception, planning and control, and UI components; evaluated the applications by conducting user studies.
- Communicated insights in 20+ publications and 10+ presentations at major robotics conferences.
- 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 (2013)

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

SKILLS

Knolwedge : Robotics Software Engineering/Architecture/Algorithms/Metrics, Developer Tooling, DevOps, Web Development, Project Planning, Requirement Elicitation, User Research/Study

Tools : Programming Languages (e.g., Python, C++, Javascript, Go), Robotics (e.g., ROS, OpenCV), Web Development (e.g., React, ReactiveX, Node.js), DevOps (e.g., git, Docker, Kubernetes, Dev Container)

Langauages : English (fluent), Korean (native)