

Arika Khor

Robotics researcher currently looking into tomographic path planning.

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Education

Expected B.S. 2026

The University of Oklahoma
B.S. Computer Science

Technical & Soft Skills

- Programming: Advanced Java (Spring, Thymeleaf), C++, C#, Java Script, Python, Bash
- Web: LaTeX, HTML5, CSS3, Bootstrap, Azure, AWS, SQL, MonogDB, Bun JS, React, WebRTC Concepts
- Tools & Concepts : ROS2, Pub/Sub Architecture, Docker, Jira, Jenkins , Git, Microsoft Office Suite, Agile, Scrum.
- Soft Skills: Leadership, Interdisciplinary Teamwork, Communication, Problem Solving, Project management.

Experience

June 2025 - Current	Construction Innovation and Analytics Lab <i>Researcher</i> <ul style="list-style-type: none">· Implemented self driving 4-wheeled differential drive robot which would navigate to multiple waypoints in a known dynamic construction site.· Used Nav2 and ROS2 with multi-Sensor fusion SLAM using the zed2i and Unitree l1 Lidar. Used robot_localization for ekf localization with 15d state estimation nodes.
Aug 2024 - Current	Sooner Competitive Robotics <i>Member (24-25), Treasurer (25-Current)</i> <ul style="list-style-type: none">· Learnt about basic computer vision using· Setup and managed Docker environments. Overhauled UI to add a live remote logging viewer, configuration manager, and overhead map. Overhauled data transfer from web socket to WebRTC request.
Sept 2022 - July 2024	Singapore Armed Forces <i>Team Lead for Curriculum Development</i> <ul style="list-style-type: none">· Performed data analysis on Cadet scores using pandas with data that was later presented in a senior management meeting.· Led a project to develop code to migrate from obsolete excel sheets that was used in trainee scoring.
Jan 2020 - Dec 2020	GameDuchy Gaming Development Company <i>Assistant Community Relations Manager</i> <ul style="list-style-type: none">· Planned, organised and executed regular in-game community wide events, working with various departments to successfully implement these events.· Designed and implemented custom chat bot to obtain item data.

Leadership Roles

Aug 2016 - May 2022	Scouting America <i>Several Leadership Positions</i> <ul style="list-style-type: none">· Eagle Scout Project: Designed and built several weather radio antennas by organizing a large group to mass-produce them. They were then given to the city's emergency coordinator to distribute to public service buildings. This project was covered in the norman transcript (article here).
Aug 2024 - Current	Sooner Competitive Programming Team <i>Team Captian</i> <ul style="list-style-type: none">· Helped organise ICPC regionals at OU.· Covered a variety of Competitive Programming topics as well as tackling unsolved kattis problems.

Papers

2025	Designing a Control System for Autonomous Cognition of Latent Hazards in Active Construction Sites <i>Abstract accepted to Smart and Sustainable Built Environment Journal</i>
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Projects

Aug 2022 - Present	FFXIV-Wiki-Fetcher <i>REST API</i> <ul style="list-style-type: none">· REST API that collect data off webscrapers, formatted into a database, then neatly outputted on a website based on user query using fuzzy searching.· Made using the Spring framework and fuzzy searching, react and tailwind for frontend, and mongoDB as the database.
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