

David Yang

512-318-6732 | davidkevin.yang@gmail.com | Seattle | linkedin.com/in/david-yang2002

Informatics student with hands-on experience in AI engineering, data processing, and software testing. Skilled in C++, Python, algorithm optimization, data analysis, and human-centered problem solving

EDUCATION

06/2026	University of Washington	Seattle, WA
---------	---------------------------------	--------------------

- ❖ *Bachelor of Arts* | **Major:** Informatics, relevant coursework: Database Management, Programming in Python, Data Structures & Algorithms, Human-Centered Design, Data Science Methods
- ❖ **Awards:** Dean's List for Spring 2022, Winter 2022, Autumn 2022

EXPERIENCE

06/2025 – 09/2025	Aqrose Technology Co., Ltd.	Beijing, China
-------------------	------------------------------------	-----------------------

AI Engineering Intern

- ❖ Developed and optimized a Behavior Retrieval Plugin in C++ for an industrial AI video-analysis system.
- ❖ Applying directed-graph learning to model worker behavior sequences and improve action-transition accuracy.
- ❖ Integrated AiVideoCore modules to improve real-time worker tracking and SOP monitoring.
- ❖ Built debugging tools and step-pattern validation logic to ensure consistent graph construction, node/edge integrity, and modular system reliability.

06/2023 – 09/2023	Tsinghua University — Intelligent Vision & Multimedia Lab	Beijing, China
-------------------	--	-----------------------

Linux Data Processing Intern

- ❖ Managed large-scale video datasets on Linux, including dataset cleaning, structuring, uploading, and environment configuration using Conda environments
- ❖ Optimized OCR subtitle extraction workflows by implementing frame-similarity filtering

06/2022 – 09/2022	Zhengxin Microelectronics Technology Co., Ltd.	Beijing, China
-------------------	---	-----------------------

Software Testing Intern

- ❖ Designed and executed 50+ automated and manual test cases to identify UI, form-submission, and data-validation issues.
- ❖ Collaborated with developers to fix SQL injection, XSS, and error-handling bugs in production systems.
- ❖ Documented results using Python and Excel to support iteration and secure product release.

RESEARCH & PUBLICATIONS

01/2023 – 06/2024	Single-Line LiDAR Localization Research Project	Beijing, China
-------------------	--	-----------------------

Research Intern

- ❖ Collected, cleaned, and preprocessed single-line LiDAR sensor data to support autonomous navigation localization research.
- ❖ Contributed to the development and refinement of the Contribution Sampling and Map-Update Localization (CSMUL) framework.
- ❖ Implemented data-filtering routines, sampling-interval adjustments, and algorithm comparison tests to evaluate localization robustness across diverse operating conditions.

Publication:

Jiang, X., Yang, D. K., Tian, Z., Liu, G., & Lu, M. (2024). *Single-Line LiDAR Localization via Contribution Sampling and Map Update Technology*. *Sensors*, *24(12)*, 3927. <https://doi.org/10.3390/s24123927> Affiliations: Lab for High Technology, Tsinghua University, Beijing, China; College of Arts and Sciences, University of Washington, Seattle, USA; Department of Electronic Engineering, Tsinghua University, Beijing, China. Submission received: 8 May 2024 • Revised: 12 June 2024 • Accepted: 14 June 2024 • Published: 17 June 2024**

SKILLS

-
- ❖ **Skills:** C++, Python, SQL, and PyTorch, with experience in Linux, Git, debugging tools, and test automation, and strong abilities in data analysis, software testing, algorithm optimization, technical writing, and problem-solving.
 - ❖ **Languages:** English (Proficient); Chinese (Native)

Work Authorization

-
- U.S. Citizen — no visa sponsorship required

