Westlake University 2025 Summer Research Internship

Westlake University is a new type of research university based in the stunning and historic city of Hangzhou, China where the ancient and ultra-modern blend to create a place like no other. Westlake is governed by a board of trustees comprised of world-leading scholars who emphasize academic freedom, research excellence, interdisciplinary engagement, and international collaboration. Our mission is to push the frontiers of knowledge and technological innovation and to make important contributions that will improve the future of all mankind. The university is equipped with brand new, state-of-the-art research facilities and is home to a vibrant community of global scholars, dedicated staff, and enthusiastic students.

1. Program Overview

Westlake University's Summer Research Internship is a six-week program that will run from **July 14 to August 22 2025.** The program is open to international students who are currently completing a bachelor's or master's degree, as well as those who have recently graduated with a bachelor's or master's degree. Research internships are available in Westlake's School of Science, School of Engineering, School of Life Sciences, and School of Medicine. Each internship is a unique, hands-on laboratory or theoretical research project tailored to current research being conducted within our Principal Investigators' (PIs) laboratories. Each of these experiential learning opportunities are designed to hone research skills and prepare participants for advanced academic and professional pursuits. Interns also participate in research forums,

interdisciplinary roundtable discussions, and cultural activities at Westlake University or in the surrounding Hangzhou area.

2. Research Projects

Please refer to the attachment.

(For more information about our faculty members and their research projects, please see: https://en.westlake.edu.cn/about/faculty/)

3. Application Period

Opens: March 11, 2025, at 12:00pm (Chinese Standard Time)

Closes: April 14, 2025, at 12:00pm (Chinese Standard Time)

4. Eligibility

(1) Applicants should be non-Chinese citizens with a valid passport and be current undergraduate or graduate students who anticipate to graduate in 2026 or 2027, or who have already graduated from a bachelor's or master's program.

(2) Applicants' majors should be in Biology, Basic Medicine, Clinical Medicine, Biomedical Engineering, Pharmacy, Mathematics, Physics, Chemistry, Materials Science and Engineering, Optical Engineering, Electronic Science and Technology, Computer Science and Technology, Environmental Science and Engineering, or another related discipline.

5. Application Process

Step 1: Complete the online application.

Please visit **http://gradapply.westlake.edu.cn** to register, select the program you wish to apply for, fill out the online application form, and upload the following required application documents:

(1) A photocopy of your passport

Photocopy of your valid passport bio data page. The passport must be ordinary and must not expire before December 31, 2025. Applicants currently residing in China must also provide a copy of their passport page containing a valid visa or residence permit.

(2) All diploma and degree certificates

Original or notarized copies of all relevant certificates (or proof of impending graduation for applicants in their final year of study).

(3) All transcripts

Original or notarized copies of transcripts showing a full record of your studies for your bachelor's and master's degrees.

(4) Evidence of English language proficiency (IELTS, TOEFL, etc.)

(5) Catalog and abstract of published papers or other documents that prove academic ability

Step 2: Submit the online application.

Step 3: Track your application online.

Supervisors may request an online or phone interview. The application review is usually completed about two weeks after the application deadline, although it may take longer in special cases. Please wait patiently for updates.

6. Program Fees and Financial Assistance

Application fees, internship program fees, and on-campus housing fees are waived. The university will provide a living allowance of 2,475 RMB for interns during the six-week program. Interns are responsible for the costs of visas, health insurance, and travel to and from Westlake University.

7. Contact Information

(1) School of Science

Tel: +86-(0)571-88112051

Email: admission_science@westlake.edu.cn

(2) School of Engineering

Tel: +86-(0)571-87381209

Email: academic_se@westlake.edu.cn

(3) School of Life Sciences

Tel: +86-(0)571-87025879

Email: admissions_sls@westlake.edu.cn

(4) School of Medicine

Tel: +86-(0)571-87352287

Email: academic_medicine@westlake.edu.cn

(5) Graduate School (for inquiries about the application process, eligibility, application submission, and other related issues)

Tel: +86-(0)-571-8811-0373

Email: intlphdadmissions@westlake.edu.cn

Attachment: Westlake University 2025 Summer Research Internship Open Positions

Westlake University 2025 Summer Research Internship Open Positions

No.	School	Host Professor	Research Field	Internship Project	Number of Interns	Campus	Requirements
1	School of Science	Bing GU	Theoretical and computational chemistry	Watching molecules dance by light	Two	Yungu campus	
2	School of Science	Chao TANG	Quantitative Biology, complex Systems, AI	1. Biological Networks 2. Quantitative Morphogenesis 3. AI for Life Science 4. Physics of Complex Systems	Two	Yungu campus	Students majoring in Physics, Mathematics, Life Science, and Computer Science
3	School of Science	Congjun WU	Condensed matter theory physics, cold atomic physics experiment	1. Research on novel states of matter 2. Cold atomic physics experiment	Two	Yungu campus	
4	School of Science	Fanglin BAO	Quantum optical sensing	1. HADAR for seeing through obstacles 2. Quantum semantic distance for image classifications	Two	Yungu campus	Applicants who major in physics, optics, or related disciplines and are interested in our group's research are welcome
5	School of Science	Haihua LU	Synthesis of natural products	Asymmetric Synthesis of the Cyclic Carbon Skeleton of Cortistatins	Two	Yungu campus	
6	School of Science	Hongyu CHEN	Nano technology	1. Nanowire forest for flexible electronics 2. Controlling diffusion in silica nanoparticles 3. Bending dyes in MOF cavities 4. Chiral nanoparticles for bio applications	Two	Yungu campus	Students with genuine interest
7	School of Science	Li DENG	Organocatalysis, organic synthesis	Lewis acid catalyzed formal cycloaddition of strained bicycles	Two	Yungu campus	Organic chemistry related direction
8	School of Science	Lihan ZHANG	Natural product chemistry, synthetic biology	Genome mining of natural products	Two	Yungu campus	
9	School of Science	Naizhou WANG	Condensed matter physics	1. Strong correlated states in TMD moire superlative 2. Construction of an integrated optics and electrical transport platform in a high magnetic field cryostat	Two	Yungu campus	Physics, Optics and Electronics
10	School of Science	Pengfei HU	Organic Chemistry	1. Synthesis of complex polycyclic natural products 2. Synthesis of highly oxidized and highly reactive natural products	Two	Yungu campus	
11	School of Science	Ruihua HE	Condensed matter physics	1. Photocathode quantum materials 2. New high-temperature superconducting materials	Two	Yungu campus	Experience in condensed matter physics experimental research, with a background in ultra-high vacuum technology preferred
12	School of Science	Wei ZHU	Strongly-correlated and Topological theory	Strongly-correlated and Topological theory	Two	Yungu campus	
13	School of Science	Wenjie DOU	Theoretical and Computational Chemistry	Nonadiabatic dynamics and electronic structure	Two	Yungu campus	
14	School of Science	Yifan YANG	Biological aging	1. First principles ofbiological aging 2. The system archiecture of cellularstress responses and celcycle regulation 3. Mammalian aging and tissue homeostasis	Two	Yungu campus	
15	School of Science	Yuxuan YE	Biocatalysis	Developing new-to-nature biocatalytic reactions	Two	Yungu campus	

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16	School of Science	Zhennan ZHOU	Applied mathematics, computational mathematics	Modeling and analysis of multiscale neuroscience	Two	Yungu campus	Majored in mathematics or physics, or having an equivalent foundation in mathematics and physics
17	School of Science	Zhichang LIU	Molecular-strain engineering	Molecular-strain engineering	Two	Yungu campus	Major in chemistry, Studied organic chemistry
18	School of Engineering	Bowen ZHU	Thin film electronic devices	Health Monitoring and Human-Computer Interaction Based on Flexible Sensors	Two	Yungu campus	Electronics, information, control engineering, etc
19	School of Engineering	Boyi HE	Microbiome engineering and quantitative biology	1. Mathematical modeling of microbiome evolution 2. Engineering microbiome functions	Two	Yungu campus	Researchers with quantitative backgrounds are highly encouraged to apply
20	School of Engineering	Chi ZHANG	AIGC, Multimodal Language Model, Agent	AIGC: 2D/3D/video content generation, editing, and style transfer algorithms Multimodal Language Models: 1. Agent research based on multimodal language models 2. Sampling acceleration for multimodal language models	Two	Yungu campus	Major in computer science, artificial intelligence, mathematics or related fields
21	School of Engineering	Donglin WANG	Reinforcement Learning and Robot Embodied Intelligence	Projects related to reinforcement learning and robot embodied intelligence	Two	Yungu campus	
22	School of Engineering	Guigeng LIU	Topological Physics	1. Research on Topological States Based on Photonic Crystals 2. Research on Topological Phenomena in Non-reciprocal Photonics	Two	Yungu campus	
23	School of Engineering	Guojun QI	Multimodal Large Model and AIGC	1. Large model for multimodal content generation and perception 2. Text driven video generation model	Two	Yungu campus	Having a foundation in mathematics and research experience in fields such as deep learning, natural speech processing, computer vision, etc
24	School of Engineering	Haisong LIN	Biochips and Biosensors	1.Biochip Design and Development 2.Research on Wearable Sweat Sensors	Two	Yungu campus	Background: Biomedical Engineering, Chemistry and Materials Science, Mechanical and Electronic Engineering
25	School of Engineering	Huan WANG	Efficient artificial intelligence, multimodal large models, computer vision, deep learning	1. Multimodal large model compression and acceleration 2. Efficient reasoning of large language models on mobile devices 3. Efficient reasoning of diffusion model 4. Efficient visual model design on mobile devices	Two	Yungu campus	Computer science and technology or related majors, very familiar with pytorch, proficient in English reading and writing, familiar with basic background knowledge of deep learning, preferably with submission experience. Serious and responsible attitude, diligent and hardworking
26	School of Engineering	Jianjun CHENG	Efficient and high- throughput synthesis of random hybrid polypeptides (RHPs)	Screening and Design of Cationic Polypeptides for Gene Delivery in Difficult-to-Transfect Cells	Two	Yungu campus	
27	School of Engineering	Jianyang ZENG	Computational Biology, machine Learning, and big Data Analysis	Metagenomics, Single Cells, Proteins	Two	Yungu campus	
28	School of Engineering	Kaicheng YU	Autonomous Intelligence, autonomous Driving, knowledge driven agent	1. Driving rules understanding and generation 2. Cognition driven autonomous intelligence 3. Knowledge driven agent for scientific discovery	Two	Yungu campus	Computer science prioritizes programming experience
29	School of Engineering	Lei WANG	Lignocellulosic biomass, green chemistry, life cycle assessment	1. Function driven green solvents design 2. Biomass derived sustainable materials	Two	Yungu campus	Chemistry, Materials science and engineering, Computer science
30	School of Engineering	Min QIU	Micro-nano optoelectronics	1. Micro-nano fabrication technology and instrumentation 2. Micro-nano photonics theory and optoelectronic devices 3. Key theories and technologies for smart applications	Two	Yungu campus	

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31	School of Engineering	Peidong LIU	3D Computer Vision	Explore the application of semantic 3D map to mobile robot	Two	Yungu campus	
32	School of Engineering	Qicheng ZHANG	Microelectromechanical systems, metamaterial	1. Manipulation of micro-objects based on high frequency acoustic waves 2. Metamaterial design for microwave frequency acoustic waves	Two	Yungu campus	
33	School of Engineering	Siying PENG	Nanophotonics	1. Dynamically tunable nanophotonics 2. Mid-infrared structured illumination for high resolution imaging	Two	Yungu campus	Physics, optical engineering, materials science
34	School of Engineering	Tao LIN	Optimization for machine learning, collaborative intelligence	1. Collaborative agentic intelligence 2. Data-centric optimization for deep learning 3. Efficient training and inference for multi-modal LLM & diffusion model	Two	Yungu campus	
35	School of Engineering	TORRES SERGIO ANDRES GALINDO	Flow and transport in geological media	1. Diffusion, mixing and reaction in porous media 2. Percolation scaling analyses for fractured media	Two	Yungu campus	Mechanics, Mathematics, Computational Mechanics, Environmental Engineering, Civil Engineering, Geotechnical Engineering, Hydraulic Engineering, Mining Engineering
36	School of Engineering	Wei WANG	Micro nano robots	1. Circuit design of micro nano robot 2. Structural design of micro nano robot	Two	Yungu campus	
37	School of Engineering	Wei XIE	Optical communication and sensing	1. Optical communication 2. Optical sensing	Two	Yungu campus	
38	School of Engineering	Weicheng CUI	Research on Complex System Theory and Miniaturization of Micro Sensor System for Marine Environment Based on Optofluidic Technology	1. Research on Miniaturization of Micro Sensor System for Marine Environment Based on Optofluidic Technology 2. How to Describe Two States of Living Beings in Complex Systems: Alive and Dead	Two	Yungu campus	There are no special requirements for professional background, but I hope you have a genuine interest in the research topic
39	School of Engineering	Xianda GONG	Atmospheric science, climate change	1. Aerial measurement of aerosol, cloud, meteorological and other data analysis 2. Organizing and analyzing Arctic snow drift data	Two	Yungu campus	
40	School of Engineering	Yajie WANG	Biocatalysis (Artificial Intelligence in Biotechnology)	1. Methodological research on transition metal enzymes and photo enzymes (limited to students with organic chemistry background) 2. ML assisted protein engineering (limited to students with AI background)	Two	Yungu campus	Organic chemistry, Computer science
41	School of Engineering	Yandong WEN	Large language model and multimodal learning	1. Alignment and distillation in large language model (LLM) 2. Multimodal biometrics analysis	Two	Yungu campus	Computer Science, Software Engineering
42	School of Engineering	Yizhou ZHU	Computational material science	Artificial intelligence for material science	Two	Yungu campus	Physics, materials or related major preferred. decent coding skills
43	School of Engineering	Yue ZHANG	Natural Language Processing(NLP), Text Generation, Text Detection; Ai for Science (LLM-based), NLP Application	1. Causal Reasoning in Large Language Models 2. LLM-Powered AI Scientist	Two	Yungu campus	Applicants should have relevant academic background, preferably in computer science, artificial intelligence, mathematics, statistics, or a related quantitative field. Familiarity with common deep learning frameworks and experience with applying ML to real-world problems is a plus. Special requirements: Strong programming skills (Python, etc.), solid mathematical foundation, good communication and collaboration abilities. Self-motivated quick learners passionate about AI research and applications

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44	School of Engineering	Yue ZHANG	AI-guided Protein domain analysis	AI-guided Protein domain analysis	Two	Yungu campus	Bioinformatics, Artificial Intelligence
45	School of Engineering	Yuzhong ZHANG	Atmospheric Environmental Science	1. Monitoring of greenhouse gas emissions 2. Atmospheric chemistry model and data analysis	Two	Yungu campus	
46	School of Engineering	Zexin JIN	Organic functional materials	Chiral organic materials	Two	Yungu campus	
47	School of Life Sciences	Bobo DANG	Protein engineering	Engineering novel therapeutic protein molecules	Two	Yungu campus	
48	School of Life Sciences	Changliang LIU	Neuroscience	Functional Dissection of Striatal Computation in the Brain	Two	Yungu campus	
49	School of Life Sciences	Hongtao YU	Cell Biology	Modeling neurodegenerative diseases with human brain organoids	Two	Yungu campus	
50	School of Life Sciences	Jia ZHENG	Molecular Evolution and Synthetic Biology	1. Synthetic biology 2. Molecular evolution	Two	Yungu campus	
51	School of Life Sciences	Jian YANG	Statistical genetics and genomics	Cellular genetics and genomics	Two	Yungu campus	Bioinformatics, biostatistics, or computational biology
52	School of Life Sciences	KIRYL DZMITRYEVICH PIATKEVICH	Neurotechnologies	Structural investigation of GPCR based biosensors	Two	Yunqi campus	Basic experience in structural biology
53	School of Life Sciences	Lianfeng WU	Aging and Metabolism	1. Genetic and Mitochondrial Basis of Developmental Origin of Adult Health and Longevity 2. Harnessing Gene-Nutrition Interactions for Tailored Options to Treatment of Metabolic Disorders	Two	Yungu campus	
54	School of Life Sciences	Lizhong LIU	Stem cell and embryonic development	Modeling human embryonic development with pluripotent stem cells	Two	Yungu campus	
55	School of Life Sciences	Longxing CAO	Protein design	1. Protein design 2. Deep learning	Two	Yunqi campus	
56	School of Life Sciences	Peiguo YANG	Phase separation and biomolecular condensates	1. Stress granule targeting in neurodegenerative disease intervention 2. Uncovering biomolecular condensates in viral-host interaction	Two	Yungu campus	
57	School of Life Sciences	Qi HU	Chemical Biology and Drug Development	Mechanism-Driven Drug Discovery	Two	Yunqi campus	
58	School of Life Sciences	Shouwen WANG	Lineage tracing and cell fate choice	1. Single-cell multi-omic lineage tracing in Humans 2. Single-cell multi-omic data analysis	Two	Yunqi campus	
59	School of Life Sciences	Weike PEI	Hematopoiesis and immunotherapy	1. In vivo decoding cancer-neuron-immune crosstalks 2. Bone marrow-brain interactions under central nervous system disorders	Two	Yungu campus	

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60	School of Life Sciences	Xiaoming ZHOU	Protein intrinsically disordered domain/Phase separation	Mechanistically decoding protein intrinsically disordered domain involved in neurodegeneration and cancers.	Two	Yunqi campus	
61	School of Life Sciences	Yihan WAN	Single molecule dynamic gene expression	How do cis-regulatory elements evolve to influence transcription dynamics	Two	Yungu campus	
62	School of Medicine	Ren SUN	Virology and immunology	1. New platform technology for vaccine design 2. High throughput assays for antibodies	Two	Center for Infectious Disease Research	
63	School of Medicine	Tiannan GUO	AI proteomics and virtual cell	Develop proteomics-based AI models for virtual cells	Two	Yunqi campus	1. Deep learning skills required 2. Interested in biomedicine
64	School of Medicine	Zhiqiang KU	The pathobiology, disease target, and antibody therapy	1. Evolutionary mechanisms of viral antigens 2. Therapeutic modulation of immune cells	Two	Center for Infectious Disease Research	Microbiology, immunology, evolutionary biology, bioinformatics, or multidisciplinary sciences