London Bielicke

Los Angeles, California | (314) 570-8932 | bielickelondon@gmail.com | londonmae.github.io | github.com/LondonMae | linkedin.com/in/london-bielicke-590102156

EDUCATION

University of California, Los Angeles (UCLA) June 2029 (anticipated)
Computer Science Ph.D; GPA: 4.0/4.0

Rhodes College, Memphis, TN May 2024
Bachelor of Science in Computer Science and German
GPA: 4.0/4.0; Presidential Scholarship; Phi Beta Kappa; Summa Cum Laude; Equestrian Team Vice President

University of Tübingen, Tübingen, Germany August 2023

SKILLS

Causal inference, Experimental design, Programming language design, Formal methods, Linux, Python, C, SQL, Git, Z3 Theorem Prover, Iterative development

EXPERIENCE

Researcher, UCLA, Los Angeles, CA August 2024-present

- **Led design and implementation of PLanet**, a domain-specific language (DSL) that allows scientists to specify experiments in a machine-verifiable format to facilitate scientific communication and reproducibility.
- Formalized DSL operations as logical constraints on matrix entries, using Z3 Theorem Prover to generate valid designs that **correctly represented 14 of 15 CHI and UIST experiments.**

High-Performance Computing Developer, Los Alamos National Laboratory, Los Alamos, NM May 2024-August 2024

- Integrated Charliecloud with Kubernetes by implementing the Container Runtime Interface (CRI) in a gRPC server to enable automated orchestration of fully-unprivileged containers on high-performance systems.

Research Intern, Computing Research Association (DREU), Newark, DE May 2022-May 2024

- Built and deployed a personal informatics tool that integrates emotion prediction with computer peripheral data to predict real-time stress.
- Improved Random Forest performance, **increasing F1-score from 0.40 to 0.88** by incorporating contextual data.

Researcher, Rhodes College, Memphis, TN August 2022-January 2023

- Designed a locality-aware work-stealing algorithm using atomic operations to minimize communication between nodes.
- Created and tested virtual reality environments in Unity to increase users' sense of embodiment by modifying haptics, throwing physics, and rotational vection.

PUBLICATIONS

- **Bielicke, L.**, Zhang, A., Tyagi, S., et al. 2025. *PLanet: Formalizing Assignment Procedures in the Design of Experiments*. Under review at CHI (arxiv preprint: https://doi.org/10.48550/arXiv.2505.09094) .
- Chandrasekaran, A., **Bielicke, L.**, et al. 2024. *"I spent 14 hours debugging just one assignment": Toward Computer-Mediated Personal Informatics for Computer Science Student Mental Health. CHI.* https://dl.acm.org/doi/10.1145/3706598.3713269
- Zhang, A., **Bielicke, L.**, et al. 2025. *Causality and Semantic Separation*. Under review at PLDI

PROJECTS

Reinforcement Learning Agent for Laser Hockey Tournament, Tübingen, Germany Aug 2023

- Trained a Deep Dueling Q Network modified with Prioritized Experience Replay, placing 15 out of 100 submissions.

AWARDS

Graduate Dean's Scholar Award: $14,500 supplement awarded to UCLA's most highly qualified graduate students
Presidential Scholarship: $37,000 merit-based scholarship recognizing top incoming students
STEM Impact Scholarship: $15,000 merit-based scholarship for STEM students
Buckman Fellow: $10,000 highly competitive merit-based fellowship to fund study abroad
Peyton Nalle Finalist: finalist for the highest academic award at Rhodes College
Jack U. Russell Award(s) for Outstanding Senior in Computer Science and Outstanding Work in First-Year Computer Science