

Skye Lane Goetz

Biomedical Research Scientist (AI & Data)

+1 (909) 497-9907
skye.lane.goetz@gmail.com
skye-lane-goetz
SkyeAv
0009-0007-8373-2352

Work Experience

Institute for Systems Biology (ISB) <i>Research Associate (Data Science)</i> ○ Placeholder	Seattle, WA <i>Nov 2024 - Present</i>
Institute for Systems Biology (ISB) <i>Data Science Intern</i> ○ Placeholder	Seattle, WA <i>Aug 2024 - Sep 2024</i>
Institute for Systems Biology (ISB) <i>Summer Intern/Trainee (NSF REU)</i> ○ Placeholder	Seattle, WA <i>Jun 2024 - Aug 2024</i>
Haynes-Zigler Lab (CalPoly) <i>Student Researcher (Computational Subgroup)</i> ○ Placeholder	San Luis Obispo, CA <i>Sep 2024 - Nov 2024</i>
CalPoly Water-Energy Sustainability Training Team (WESTT) <i>Student Researcher (PHOS and CRIAS projects)</i> ○ Placeholder	San Luis Obispo, CA <i>Jan 2024 - Jun 2024</i>
Compass Group USA <i>Food Service Worker</i> ○ Placeholder	San Luis Obispo, CA <i>Jan 2024 - Jun 2024</i>
General Polymer Solutions (GPS Polymers) LLC <i>Customer Fulfillment and Logistics</i> ○ Placeholder	Upland, CA <i>Aug 2021 - Sep 2023</i>
US Soccer Federation <i>US Soccer Grassroots Referee (Grade 8)</i> ○ Placeholder	Upland, CA <i>Jun 2021 - Sep 2023</i>
Kessen Star Spinners <i>Founder, President, and CEO</i> ○ Placeholder	Upland, CA <i>Dec 2015 - Sep 2016</i>

Projects

Placeholder <i>Placeholder</i> ○ Placeholder	Placeholder <i>Placeholder - Placeholder</i>
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Skills

Technical Skills
○ Languages: Python, Julia, Nim, Clojure, SQL, Shell Scripting, LaTeX	
○ Data Science: Pandas, Numpy, Polars, SciPy, Matplotlib, Seaborn	
○ ML/DL: PyTorch, Scikit-learn, XGBoost, Imblearn	
○ LLMs & Weak Supervision: HuggingFace Transformers, PEFT, LoRA, LangChain, Instructor, Snorkel, UWS	
○ Knowledge Graphs: Ontology, Knowledge Curation, KGX, Centrality Analyses, Graph Neural Networks	
○ NLP: spaCy, NLTK, Embeddings, Text Classification	
○ Tooling: Docker, Conda, Poetry, Setuptools, Nix, Slurm	

Domain Knowledge

- **Microbiome & Multi-omics Data:** Statistical and Computational Analysis of Datasets, Integration of Heterogeneous Biological Data
- **Computational Chemistry:** Cheminformatics, Quantum Chemistry with ORCA, TDDFT Excited-state Calculations, RDKit, Molecular Modeling
- **Spectroscopy:** FTIR, ¹H NMR, ¹³C NMR, DEPT
- **Environmental Engineering:** Algae-based Biofuels and Biofertilizers, Wastewater Treatment Applications

Additional Competencies

- **Business & Entrepreneurship:** Early-stage Venture Creation, Product Marketing, Small-scale Operations
- **Sales & Operations:** Door-to-door Sales Experience, SPIN Selling, Logistics and Client Delivery
- **Communication & Mentorship:** Team Mentorship, Scientific Presentations, Public Speaking, Conference Talks
- **Agribusiness:** Academic Foundation (6 months) prior to Biochemistry Transition

Publications

- [1] Gwêlyn Glusman Skye L. Goetz, Amy K. Glen. MicrobiomeKG: Bridging Microbiome Research and Host Health Through Knowledge Graphs. *Frontiers in Systems Biology*, 2025 (Accepted).
- [2] Sergio E. Baranzini Chris Bizon Matthew Brush William Byrd Lawrence Chung Andrew Crouse Eric Deutsch Michel Dumontier Aleksandra Foksinska Jennifer Hadlock Kaiwen He Sui Huang Robert Hubal Gregory M. Hyde Sharat Israni Kelyne Kenmogne David Koslicki Jana Dorfman Marcette Ewy A. Mathe Abrar Mesbah Sierra A. T. Moxon Christopher J. Mungall John Osborne Carrie Pasfield Guangrong Qin Stephen A. Ramsey Justin Reese Jared C. Roach Reese Rose Karthik Soman Andrew I. Su Casey Ta Gaurav Vaidya Rosina Weber Qi Wei Mark Williams Chunlei Wu Colleen Xu Chase Yakaboski The Biomedical Data Translator Consortium Kamararie Fecho, Gwêlyn Glusman. Announcing the Biomedical Data Translator: Initial Public Release. *Clinical and Translational Science*, 2025.
- [3] Qi Wei Jared C. Roach Arpita Joshi Skye L. Goetz Sierra T. Moxon Matthew H. Brush Colleen Xu Yao Yao Amy K. Glen Evan D. Morris Alexandra Ralevski Ryan Roper Basazin Belhu Yue Zhang Ilya Shmulevich Jennifer Hadlock Gwêlyn Glusman Guangrong Qin, Kamileh Narsinh. Generating Biomedical Knowledge Graphs from Knowledge Bases, Registries, and Multiomic Data. *bioRxiv*, 2024.

Education

California State Polytechnic University (CalPoly)

BS Biochemistry

- Placeholder

San Luis Obispo, CA

Sep 2023 - Present

Upland High School

High School Diploma

- Placeholder

Upland, CA

Aug 2019 - Jun 2023