

# BLAKE OLSON

blakeaolson1@gmail.com | 512-670-6814 | linkedin.com/in/blakeaolson | blakeaolson.github.io

## EDUCATION

### University of Texas at Austin

M.S. in Computer Science • On campus (3% acceptance rate)

May 2027

### Texas A&M University

B.S. in Computer Science • Minor in Mathematics

May 2025

GPA: 3.92/4.0 | CS Honors

Relevant Courses: Machine Learning, Deep Learning, Algorithms, Honors Linear Algebra, Multivariate Calculus

Awards: Undergraduate Research Excellence Award

## EXPERIENCE

### Google

Machine Learning Intern

Aug 2025 – Nov 2025

Mountain View, CA

- Developed LLM AutoRater for Search AI Overview clusters to improve quality and ranking of responses
- Improved existing AI Overview clustering algorithm with an **83.2%** increase in Calinski-Harabasz Index
- Designed sampling strategy for cluster documents using embeddings and distance to centroid

### Apple

Software Engineering Intern | Swift, Python, AI, ML, NLP, UIKit, SwiftUI, CoreML

May 2025 – Aug 2025

Cupertino, CA

- Ranked **1<sup>st</sup>** among interns in organization and selected to present to Senior VP of Software at final showcase
- Engineered an intelligent content generation system using a secure 3B on-device language model
- Implemented caching system for AI generated content that reduced internal API calls

### Texas A&M DIVE Lab

ML Research Assistant | Python, PyTorch, Deep Learning, NLP, Linux, AI, ML, RL

Feb 2024 – May 2025

College Station, TX

- Post-trained Qwen-1.5B language model using RL to achieve **11.8%** increase in accuracy on gsm8k math dataset
- Created a robust benchmark (Sys2Bench) that measures **4** different LLM inference-time techniques on **10** datasets
- Utilized PyTorch and RDKit to align 3D molecular structures, training a novel SBDD method in a recent ICLR paper

### Esri

Software Development Intern | Swift, UIKit, SwiftUI, Git, ArcGIS, Cocoa Touch, Xcode

May 2024 – Aug 2024

Vienna, VA

- Engineered optional location for tasks feature using Swift and UIKit that was deployed to **50,000+** users
- Improved notification reports algorithm efficiency by **24.5%** using hashing and sets

### IBM (formerly Dialexa)

Software Engineer Intern | SQL, Swift, UIKit, TablePlus, Docker, Postgres, Git, Jira

May 2023 – Aug 2023

Dallas, TX

- Refactored vision diagnosis application using Swift to reduce language page load time by over **31.4%**
- Leveraged Docker, TablePlus and PHP to write SQL for rest API requests consumed by **10,000+** clients

## SKILLS

**Languages:** Python, Swift, C++, Java, C, SQL, PHP

**Technologies:** PyTorch, SwiftUI, UIKit, React, Docker, Express.js, Git, Postgres, Jira, Heroku

## PUBLICATIONS

Parashar, S., Gui, S., Li, X., Ling, H., Vemuri, S., Olson, B., et. al (2025). **Curriculum Reinforcement Learning from Easy to Hard Tasks Improves LLM Reasoning** arXiv

Parashar, S., Olson, B., Khurana, S., Li, E., Ling, H., Caverlee, J., Ji, S. (2025) **Inference-Time Computations for LLM Reasoning and Planning: A Benchmark and Insights** arXiv

Ling, H., Parashar, S., Khurana, S., Olson, B., Basu, A., Sinha, B., Tu, Z., Caverlee, J., Ji, S. (2025) **Complex LLM Planning via Automated Heuristics Discovery** arXiv

Fu, C., Li, X., Olson, B., Ji, H., Ji, S. (2025) **Fragment and Geometry Aware Tokenization of Molecules for Structure-Based Drug Design Using Language Models.** ICLR Poster 2025