Alexander Clines

Software Engineer / Engineering Manager

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SKILLS

- Swift / Objective-C
- C / C++
- Python
- Bash / Shell
- iOS / macOS
- tvOS / visionOS
- Linux
- AWS / GCP
- Distributed computing
- Protocol Buffers
- Tableau
- Docker
- PostgreSQL

WORK HISTORY

Apple, Cupertino CA

Engineering Manager

September 2023 - Present

- Manage a team of 4 and lead cross-functional efforts with dozens of engineers on Apple Intelligence initiatives, including LLM quantization, evaluation, and on-device runtime architecture
- Lead on-device natural language initiatives beyond Apple Intelligence, ensuring efficiency and scalability of core NL systems
- Drive major components of future AI projects for Apple products, from rapid prototyping of new modeling capabilities to integration of agentic, multi-modal, and hybrid on-device/server systems
- Partner with modeling teams to accelerate research and protoyping of state-of-the-art AI capabilities

Senior Software Engineer

August 2020 - September 2023

- Member of the Siri Natural Language Platform team; brought NL to ondevice starting in iOS 15.
- Led cross-team efforts optimizing NL models for speed and memory without loss of accuracy
- Led effort expanding our on-device platform to support functionality outside of Siri increasing our impact to user experience
- Supported new hardware bring up efforts, optimizing NL Platform per hardware platform as needed
- Primarily worked with on-device development utilizing Objective-C / Swift
- Used Python/Tableau in offline environments for analysis on performance and monitoring metrics

Google, Mountain View CA **—** *Software Engineer*

July 2017 - August 2020

As part of the Google Language AI team I supported applying new NLP technologies towards various solutions at Google

- Implementation of latest unsupervised clustering methods that were scalable for large datasets and distributed computing. Presented this work at an internal Google Research conference.
- Uncovered new applications of LSTM networks for Google Ads.
- Optimized large BERT models for production using techniques including distillation.
- Designed/implemented or otherwise contributed to multiple core frameworks used internally for operating on NLP data including Sentiment Analysis models publicly accessible in Google Cloud.
- Acknowledged for my contributions for a dataset published & presented at EMNLP in 2018 in the paper "A Challenge Set and Methods for Noun-Verb Ambiguity"

EDUCATION

Texas Tech University , Lubbock TX **—** *Computer Science B.S. & Mathematics B.S.*

Degrees obtained in 2017