AKASH BHATTHAL

github.com/abhatthal | akashbhatthal@gmail.com | (510) 255-5478 | abhatthal.com

Experience

Software Engineer, Google   **May 2022 – Present**

- Build upon YouTube Search infrastructure to more efficiently serve queries with reduced cost and latency
- Contributed over 20,000 lines of C++ code including optimizations and migrations
- Reduced Search latency by 3 milliseconds without any search quality impact by cutting DocInfo retrieval size by 30%

Software Engineering TA, Code Platoon   **Feb 2021 – May 2021**

- Taught data structures, algorithms, and fundamentals of computer science to a class of 30 military veterans.
- Assisted students with programming assignments and web development projects
- Built web applications using modern frameworks including Django and React

Projects

Parabix on ARM   abhatthal.github.io/parabix-arm

- Provided support for Parabix, a high-performance programming framework, to leverage SIMD and multicore parallel processing features on Apple Silicon
- Translated 9 x86 operations into equivalent ARM using LLVM IR
- Contributed over 200 of lines of C++ code over a 3-month semester

Kraken   github.com/abhatthal/kraken

- Built and maintained a Python Discord bot for user-management, moderation, and logging of over 300 users over 3 years.

The Giving Tree   github.com/abhatthal/the-giving-tree

- Designed and developed a simple clicker game with C# in the Unity game engine
- Led a team of 4 developers over a 3-month semester using Agile methodology

Education

Simon Fraser University
Bachelor of Science, Computer Science
2017 – 2022

Skills

Web Dev	React, Django, Flask
Data Science	NumPy, Pandas, Spark
Compilers	LLVM IR, Parabix, Neon