

AKASH BHATTHAL

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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