AKASH BHATTHAL

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Portfolio https://www.abhatthal.com
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GitHub https://www.github.com/abhatthal

Who am I?

I am an Ex-Google software engineer with 2 years of experience developing YouTube's Search infrastructure using C++. I currently live in the San Francisco Bay Area and am open to relocation.

Experience

Software Engineer, Google **May 2, 2022 – April 22, 2024**

- Built upon YouTube Search infrastructure to serve queries more efficiently 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 cutting ThinSearch document retrieval size by 30%.
- Embedded precompiled machine learning models for Search wholepage ranking for improved performance over dynamic models.
- Moved Ads RPC call to leverage partial search response for more relevant ads.

Software Engineering TA, Code Platoon **Feb 1, 2021 – May 31, 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

Website Portfolio https://github.com/abhatthal/portfolio

- Published a responsive website summarizing my experiences and projects.
- Built from scratch using HTML, CSS, and JavaScript without the use of website templates or web frameworks like Angular or React.

Programming Languages

Proficient C/C++, Python, JavaScript, Java, Bash

Familiar Haskell, C#, MATLAB, R, Go, Rust

Education

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

Skills

- **Web Dev** React, Django, Flask, Spring Boot
- **Data Science** NumPy, Pandas, Spark
- **Compilers** LLVM IR, Parabix, Neon
- **Game Dev** Unity, Unreal Engine
- **Databases** PostgreSQL, MySQL, Django ORM
- **Containers** Docker, Docker Compose
- **Graphics** OpenGL (GLUT in C++)