

AKASH BHATTHAL

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Portfolio  <https://www.abhatthal.com>

LinkedIn  <https://www.linkedin.com/in/abhatthal>

GitHub  <https://www.github.com/abhatthal>

Experience

Lead Software Engineer, Statewide California Earthquake Center (SCEC)

June 6 2024 – Present

- Provide cross-platform support for SCEC-VDO with Java and VTK
- Run and configure ETAS simulations across several HPC systems using the Slurm scheduler and ExpressMPJ

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.

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++)