

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)

August 1 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++) |