AKASH BHATTHAL

Contact ✉ akashbhatthal@gmail.com 📍 Culver City, CA, USA

Portfolio 💼 https://www.abhatthal.com

LinkedIn 🤝 https://www.linkedin.com/in/abhatthal

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

Experience

Software Engineer,
Statewide California Earthquake Center (SCEC)   **Aug 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++)