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To whom it may concern:

I am writing this letter of recommendation at the request of Darshan Makwana. Darshan took part in my course *CS-E4580 Programming Parallel Computers* (PPC, <https://ppc.cs.aalto.fi/>) in spring 2025 at Aalto University. This is a practical hands-on course on algorithm engineering for modern parallel computers: students solve programming exercises in which they learn how to make the best possible use of the computing power of multicore CPUs and GPUs. Topics covered in this 6-week intensive course include multicore parallelism, vector instructions, instruction-level parallelism, efficient use of memory hierarchies, and GPU programming.

In spring 2025 we had **370+ students** actively taking part in the course and 280+ students who passed the course. Darshan Makwana was ranked **3rd** among all these students.

This is an **impressive achievement**. The PPC course is highly popular, attracting each year some of the very best students from Aalto University, among them students who have got background in e.g. competitive programming, computer graphics, game industry, and high-performance computing. The course is challenging, and the performance that Darshan Makwana demonstrated is a strong indicator of excellent practical programming skills, ability to learn advanced theoretical topics quickly, and ability to put theoretical knowledge into good practical use.

Sincerely,



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Associate Professor  
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