Imperial College London

Department of Earth Science and Engineering
Imperial College London
RSM Building
Prince Consort Road
London SW7 2AZ
Tel: +44 (0)20 7594 9322
c.pain@imperial.ac.uk
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Prof. Christopher Pain

To Whom It May Concern,

I am writing to provide my strongest recommendation for Hakancan's application for the UK Global Talent Visa. As a Professor in the Department of Earth Science and Engineering at Imperial College London and Head of the Applied Computation and Modelling Group (AMCG), I have had the privilege of supervising Hakancan's research work and can attest to his exceptional abilities and innovative contributions to the field of AI-driven physics simulations.

I am a Professor at Imperial College London and head the Applied Computation and Modelling Group, which is the largest departmental research group at Imperial College with approximately 70 research-active scientists. Our group specialises in developing world-leading modelling techniques for earth, engineering and biomedical sciences. I have authored over 200 journal publications with more than 13,700 citations and an h-index of 62. I was honoured by Imperial College London with its Research Excellence Award in 2010 and have attracted over £20M in research funding over the past decade.

I first met Hakancan in December 2023 when he reached out to our group seeking to conduct machine learning research on physics simulations. His academic background and research interests aligned perfectly with our ongoing work in computational modelling and numerical methods. Since then, he has been actively collaborating with our AMCG research group on several cutting-edge research projects, demonstrating exceptional technical capabilities and innovative thinking.

What truly sets Hakancan apart is his groundbreaking work in developing a novel neural network architecture that incorporates convolutional layers for physics modelling applications. His innovative approach has unlocked unprecedented accuracy and performance gains in computational physics simulations, representing a significant breakthrough in the field.

This work has the potential to make simulations thousands of times faster, which could dramatically accelerate research and industry applications across engineering, climate science, and materials research. His research has been instrumental in contributing to AMCG's RAPIDS (Rapid AI-Powered Image-to-Dynamic Simulations) platform and has attracted significant industry funding and additional research grants, highlighting the commercial and academic value of his contributions. Hakancan's expertise in bridging AI with computational physics positions him uniquely to contribute to the UK's digital technology sector.

Throughout my career working with researchers at various levels, I have observed that Hakancan demonstrates strong intellectual capabilities and technical insight that serve him well in tackling complex scientific challenges. His capacity to rapidly identify and solve fundamental computational challenges, combined with his track record of securing significant research funding, demonstrates the kind of research leadership that drives scientific progress.

Hakancan has expressed strong commitment to remaining in the UK and plans to build an AI startup focused on computational physics applications. Given his proven ability to develop transformative technologies with both academic and commercial potential, I am confident he will contribute significantly to the UK's technology ecosystem.

I strongly support Hakancan's visa application. His groundbreaking work in neural network architectures for scientific computing and the transformative potential of his research clearly establishes him as an outstanding candidate who will make substantial contributions to the UK's technological advancement and scientific excellence.

Yours Sincerely

Professor Christopher Pain