



BUCKINGHAMSHIRE  
NEW UNIVERSITY  
EST. 1891

## Letter of Reference, Secure System Development

**To Whom It May Concern:**

**Date: 19 April 2025**

I am delighted to write this letter of reference for Mr. Harihara Sudhan Shanmugam, whom I have had the pleasure of working alongside since March 2023 as part of the Systems Development Team within the Digital Technical Services department at Buckinghamshire New University. In my role as a System Developer in the same team, I have closely observed Harihara's technical contribution and collaborative spirit, particularly in the development of sensitive and critical systems that support our university research computing infrastructure.

In his role as Computational Research Technician, Mr. Harihara Sudhan Shanmugam has demonstrated exceptional expertise in developing and maintaining advanced computing infrastructure. His comprehensive understanding of High-Performance Computing (HPC) architectures has been instrumental in enhancing our technical capabilities across multiple university research projects.

Mr. Harihara Shanmugam's most notable contributions have been in the areas of algorithmic development and security implementation. He has shown remarkable skill in designing and optimizing complex algorithms for data processing, significantly improving computational efficiency across our systems. His security-focused approach to system design has been particularly valuable, implementing robust authentication protocols, encryption standards, and secure data handling practices that have strengthened our research computing infrastructure against potential security vulnerabilities.






His work on tuning and integrating BioBERT large language models into our computational processing genomic system pipelines deserves a very special mention. Mr. Harihara Shanmugam skilfully optimized the BioBERT architecture to suit our specific computational requirements, fine-tuning the model parameters and successfully integrating it within our secure processing framework. This LLM tuning and integration in genomic compute system demonstrated both his system level algorithmic development and security consciousness while significantly enhancing our data processing capabilities. Beyond his technical capabilities, Mr. Harihara Shanmugam has consistently exhibited professionalism, dedication, and a collaborative professional approach.

**High Wycombe Campus**  
Queen Alexandra Road  
High Wycombe  
Buckinghamshire HP11 2JZ

**Aylesbury Campus**  
Walton Street  
Aylesbury  
Buckinghamshire HP21 7QG

**Uxbridge Campus**  
106 Oxford Road  
Uxbridge  
Middlesex UB8 1NA

**Telephone: 01494 522 141**  
**International: +44 1494 605 259**  
**Email: [advice@bnu.ac.uk](mailto:advice@bnu.ac.uk)**

 @BuckinghamshireNewUniversity  
 @BuckinghamshireNewUniversity  
 @BNUni\_  
 @\_BNUni  
 @\_BNUni

[BNU.AC.UK](https://www.bnu.ac.uk)



BUCKINGHAMSHIRE  
NEW UNIVERSITY  
EST. 1891

Additionally, Mr. Harihara Sudhan Shanmugam contributed directly to the algorithmic backbone of our secure genomic compute pipeline, including the development of intelligent workload scheduling system algorithms, Graphical Processing Unit (GPU) optimized system batch management strategies, and Message Passing Interface (MPI) communication tuning. These core components were central to the system's performance gains and security compliance, demonstrating his ability to engineer practical solutions that reflect both research insight and system-level precision.

He communicates complex technical concepts clearly to stakeholders from diverse backgrounds and has proven to be dependable in meeting project deadlines. His adaptability and willingness to support colleagues have made him a truly valuable team member.

It has been a pleasure working with Mr. Harihara Sudhan Shanmugam, and I am very confident that his technical skill set, adaptability, and dedication to quality would be of great value to any forward-looking advance research and development team.

Please feel free to contact me for any further information.

Sincerely,

---

Chamodi Chinthaki Korala Hewage (Apr 20, 2025 19:09 GMT+1)

**Chamodi Korala Hewage**  
System Developer  
System Development Team  
Digital Technical Services  
Buckinghamshire New University  
Email: [chamodi.koralahewage@bnu.ac.uk](mailto:chamodi.koralahewage@bnu.ac.uk)







# Letter of Reference-Secure System Development

Final Audit Report

2025-04-20

Created:	2025-04-19
By:	Hari Shanmugam (sudhanmactonish@outlook.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAA3XrN2eYcnDHdlHUpOqc4fD4N7nDQT4cz

## "Letter of Reference-Secure System Development" History

-  Document created by Hari Shanmugam (sudhanmactonish@outlook.com)  
2025-04-19 - 7:57:52 PM GMT
-  Document emailed to chamodi.koralahewage@bnu.ac.uk for signature  
2025-04-19 - 7:57:56 PM GMT
-  Email viewed by chamodi.koralahewage@bnu.ac.uk  
2025-04-20 - 4:00:45 PM GMT
-  Signer chamodi.koralahewage@bnu.ac.uk entered name at signing as Chamodi Chinthaki Korala Hewage  
2025-04-20 - 6:09:31 PM GMT
-  Document e-signed by Chamodi Chinthaki Korala Hewage (chamodi.koralahewage@bnu.ac.uk)  
Signature Date: 2025-04-20 - 6:09:33 PM GMT - Time Source: server
-  Agreement completed.  
2025-04-20 - 6:09:33 PM GMT