Jiaqiu Wang, PhD

Curriculum Vitae

Senior Lecturer | FHEA
School of Computer Science and Digital Technologies
London South Bank University
103 Borough Road, London SE1 0AA, United Kingdom

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EDUCATION

Doctor of Philosophy (PhD) 09/2016 – 07/2020
Biomechanics
*School of Mechanical, Medical & Process Engineering, **Queensland University of Technology**, Australia*

Master of Science (MSc) by Research 10/2014 – 05/2016
Biomedical Engineering
*School of Medicine, **University of Dundee**, United Kingdom*

Bachelor of Engineering (BEng) 09/2010 – 06/2014
Nuclear Engineering and Technology
*College of Power Engineering, **Chongqing University**, China*

PROFESSIONAL EXPERIENCE

Senior Lecturer 10/2023 –
*School of Computer Science and Digital Technologies, **London South Bank University**, United Kingdom*

Postdoctoral Researcher 06/2021 – 06/2023
*School of Mechanical, Medical & Process Engineering, **Queensland University of Technology**, Australia*

Facility Scientist 08/2021 – 06/2022
*Centre for Advanced Imaging, **The University of Queensland**, Australia*

Postdoctoral Researcher 06/2020 – 06/2021
*School of Clinical Sciences, **Queensland University of Technology**, Australia*

Sessional Academic 07/2018 – 06/2021
*School of Mechanical, Medical & Process Engineering, **Queensland University of Technology**, Australia*

HONORARY POSITION

Adjunct Senior Lecturer 06/2025 –
*School of Mechanical, Medical & Process Engineering, **Queensland University of Technology**, Australia*

Visiting Fellow 06/2023 – 06/2025
*School of Mechanical, Medical & Process Engineering, **Queensland University of Technology**, Australia*

TEACHING EXPERIENCE

Leading & Lecturing

CSI_7_IDP, Information and Data Privacy 2025 –
*School of Computer Science and Digital Technologies, **London South Bank University**, United Kingdom*

CSI_7_SYS, Systems - Cyber Threats, Vulnerabilities and Countermeasures 2024 –
*School of Computer Science and Digital Technologies, **London South Bank University**, United Kingdom*

CSI_6_SCS, Systems and Cyber Security 2024
*School of Computer Science and Digital Technologies, **London South Bank University**, United Kingdom*

Tutoring

CSI_4_RAU, Requirements Analysis and User-centred Design 2026 –
*School of Computer Science and Digital Technologies, **London South Bank University**, United Kingdom*

CSI_7_MAL, Machine Learning 2025 –
*School of Computer Science and Digital Technologies, **London South Bank University**, United Kingdom*

CSI_4_DMA, Discrete Mathematics 2024
*School of Computer Science and Digital Technologies, **London South Bank University**, United Kingdom*

EGH414, Stress Analysis 2020 – 2021
*School of Mechanical, Medical & Process Engineering, **Queensland University of Technology**, Australia*

EGH424, Biofluids 2018 – 2020
*School of Mechanical, Medical & Process Engineering, **Queensland University of Technology**, Australia*

Graduating Projects

CSI_7_PRO, Dissertation 2023 –
*School of Computer Science and Digital Technologies, **London South Bank University**, United Kingdom*

CSI_6_CSP, Honours Computer Science Project 2023 –
*School of Computer Science and Digital Technologies, **London South Bank University**, United Kingdom*

ACCREDITATION

Fellowship of the Higher Education Academy (FHEA) 2025
***AdvanceHE**, United Kingdom*

AWARD

Roland Bishop Award for Biomedical Engineering Research 2021
***Queensland University of Technology**, Australia*

Executive Dean's Commendation for Outstanding Doctoral Thesis Award 2021
*Science and Engineering Faculty, **Queensland University of Technology**, Australia*

Faculty Write Up (FWU) Scholarship 2020
*Science and Engineering Faculty, **Queensland University of Technology**, Australia*

PhD Scholarship 2016
***Queensland University of Technology**, Australia*

MSc Overseas Scholarship 2014
***University of Dundee**, United Kingdom*

Excellent Graduate 2014
*College of Power Engineering, **Chongqing University**, China*

Comprehensive Scholarship 2014
*College of Power Engineering, **Chongqing University**, China*

Comprehensive Scholarship 2013
*College of Power Engineering, **Chongqing University**, China*

Excellent Student 2013
*College of Power Engineering, **Chongqing University**, China*

Fastest-improved Student 2013
*College of Power Engineering, **Chongqing University**, China*

GRANT

Enhancing Research Excellence Fund 2025
Heart Strain Analysis through AI-driven Image Correlation Computational Method
(Principal Investigator; 1 year; GBP 10,000)
***London South Bank University**, United Kingdom*

TPCH Foundation & QUT Centre for Biomedical Technologies Seed Grant 2025
Quantitative Assessment of Coronary Blood Flow Alterations Due to Aortic Stenosis
Grant No. CBT2025-04 (Associate Investigator; 1 year; AUD 12,012.70)
***The Prince Charles Hospital Foundation**, Australia*

Expanding Global and National Reach Funding 2024
Clinical Translation of Computational Patient-specific Blood Flow Assessment
(Principal Investigator; 7 months; GBP 5,804)
***London South Bank University**, United Kingdom*

Springboard Funding 2024
Performance of Digital Volume Correlation Algorithm in Medical Imaging Analysis
(Principal Investigator; 7 months; GBP 3,150)
***London South Bank University**, United Kingdom*

Industry Early/Mid Career Researcher (ECR/MCR) Grant 2022
Advanced optical coherence tomography-based elastography (OCE) algorithm designed for strain field mapping of soft tissue
(Principal Investigator; 1 year; AUD 20,000)
*Centre for Biomedical Technologies, **Queensland University of Technology**, Australia*

ECR Grant 2021
The prototype development of the polarization-based optical coherence tomographic (OCT) biomechanical test system and its application on the mechanical test of multi-component plaque
(Principal Investigator; 1 year; AUD 20,000)
***Queensland University of Technology**, Australia*

New Investigator Grants 2019
Study of plaque rupture and erosion with an optical coherence tomography (OCT)-based patient-specific coronary model and fluid-structure interaction (FSI)
Grant No. NI2019-19 (Principal Investigator; 1 year; AUD 9,998.35)
***The Prince Charles Hospital Foundation**, Australia*

FULL PUBLICATION LIST

Google Scholar Citations **758** (***708** in 5-year*) | H-index **15** (***15** in 5-year*) | i10-index **21** (***19** in 5-year*)

Edited Books

1. **J. Wang**, Z. Li, C. Wu, et al., eds. ***Motion Tracking and Deformation Analysis in Biomechanics***. Frontiers Research Topics. Frontiers Media SA, 2025. ISBN: 978-2-8325-6888-0. DOI: 10.3389/978-2-8325-6888-0.

Book Chapters

1. J. Benitez Mendieta†, P. K. Paritala†, **J. Wang**†, and Z. Li†. "Imaging-Based Patient-Specific Biomechanical Evaluation of Atherosclerosis and Aneurysm: A Comparison Between Structural-Only, Fluid-Only and Fluid–Structure Interaction Analysis". In: ***Computational Biomechanics for Medicine***. Ed. by P. M. Nielsen, M. P. Nash, X. Li, K. Miller, and A. Wittek. Cham: Springer International Publishing, 2022, pp. 53–74. ISBN: 978-3-031-09327-2. DOI: 10.1007/978-3-031-09327-2_4.

Refereed Journal Articles

1. R. Fang, J. Mao, Q. Chen, et al. (and **J. Wang***). "A Proof-of-Concept CFD Study of Intranasal Airflow Under Different Breathing Routes and Airway Collapse Conditions". In: ***Bioengineering*** 13.11 (10, 2026), p. 1330. DOI: 10.3390/bioengineering13111330.
2. N. M. Castoldi, E. Pickering, **J. Wang**, et al. "Assessment of Vertebral Body Bone Quality in Adolescent Idiopathic Scoliosis (AIS) Using Micro-CT, qBEI, and Nanoindentation—A Case Study". In: ***JOR SPINE*** 9.3 (2026), e70217. DOI: 10.1002/jsp2.70217.
3. Y. Ren, S. Guo, **J. Wang**, and C. Zhang. "Bulk Photovoltaic Effects in Fully Compensated Ferrimagnets". In: ***Physical Review B*** 114.15 (21, 2026), p. 154420. DOI: 10.1103/hl7j-r85w.
4. K. Hu, P. Qiu, X. Wang, et al. (incl. **J. Wang**). "Investigating the Impact of Collateral Circulation Pathways on Hemodynamics in Iliac Vein Compression Syndrome". In: ***Frontiers in Bioengineering and Biotechnology*** 14 (2026), p. 1812311. DOI: 10.3389/fbioe.2026.1812311.
5. H. Xie, Q. Huang, H. Yu, et al. (incl. **J. Wang**). "Digital Twin for Atrial Fibrillation: Fundamentals, Current Advances, Challenges and Future Perspectives". In: ***Information Fusion*** 128 (2026), p. 103957. DOI: 10.1016/j.inffus.2025.103957.
6. H. Wu, **J. Wang**, H. Xie, et al. "Strain Analysis of Intracranial Aneurysms for Characterization of Irregular Pulsation from 4D-CT Angiography". In: ***Journal of Biomechanics*** (2026), p. 113166. DOI: 10.1016/j.jbiomech.2026.113166.
7. H. Wu†, **J. Wang**†, Z. Zhu, et al. "Impact of Multiplicative Noise Removal on Digital Volume Correlation-Based Optical Coherence Elastography". In: ***Optics and Lasers in Engineering*** 193 (2025), p. 109097. DOI: 10.1016/j.optlaseng.2025.109097.
8. H. Yu, H. Xie, Z. Wang, et al. (incl. **J. Wang**). "Three-Dimensional Left Atrial Strain Analysis in Patients with Atrial Fibrillation for Stroke Risk Evaluation: A Comparison between Patients with and without Stroke History". In: ***Journal of Biomechanics*** (2025), p. 112981. DOI: 10.1016/j.jbiomech.2025.112981.
9. **J. Wang***, C. Wu, Q. Huang, et al. "Editorial: Motion Tracking and Deformation Analysis in Biomechanics". In: ***Frontiers in Bioengineering and Biotechnology*** 13 (2025), p. 1691342. DOI: 10.3389/fbioe.2025.1691342.
10. L. Wei, K. Hu, **J. Wang**, et al. "Validation of the Efficacy of the Porous Medium Model in Hemodynamic Analysis of Iliac Vein Compression Syndrome". In: ***Frontiers in Bioengineering and Biotechnology*** 12 (2025), p. 1481336. DOI: 10.3389/fbioe.2024.1481336.
11. R. Fang, Z. Wang, **J. Wang**, et al. "Patient-Specific Pulmonary Venous Flow Characterization and Its Impact on Left Atrial Appendage Thrombosis in Atrial Fibrillation Patients". In: ***Computer Methods and Programs in Biomedicine*** 257 (2024), p. 108428. DOI: 10.1016/j.cmpb.2024.108428.
12. H. Yu, Z. Wang, H. Wu, et al. (incl. **J. Wang**). "In-Vivo Left Atrial Surface Motion and Strain Measurement Using Novel Mesh Regularized Image Block Matching Method with 4D-CTA". In: ***Journal of Biomechanics*** 176 (2024), p. 112354. DOI: 10.1016/j.jbiomech.2024.112354.
13. H. Xie, H. Yu, H. Wu, et al. (incl. **J. Wang**). "Quantifying Irregular Pulsation of Intracranial Aneurysms Using 4D-CTA". In: ***Journal of Biomechanics*** 174 (2024), p. 112269. DOI: 10.1016/j.jbiomech.2024.112269.
14. Z. Zhu, **J. Wang**, H. Wu, et al. "Performance Test of Digital Volume Correlation on Tracking Left Atrium Motion from Cardiac CT". In: ***Acta Mechanica Sinica*** 41.4 (2024), p. 624216. DOI: 10.1007/s10409-024-24216-x.
15. **J. Wang**†,*, H. Wu†, Z. Zhu, et al. "Impact of Speckle Deformability on Digital Imaging Correlation". In: ***IEEE Access*** 12 (2024), pp. 66466–66477. DOI: 10.1109/ACCESS.2024.3398786.
16. H. Xie, H. Wu, **J. Wang**, et al. "Constrained Estimation of Intracranial Aneurysm Surface Deformation Using 4D-CTA". In: ***Computer Methods and Programs in Biomedicine*** 244 (2024), p. 107975. DOI: 10.1016/j.cmpb.2023.107975.
17. **J. Wang***, R. Zietal, A. Arase, et al. "Computer-Assisted Pre-Operative Automatic Segmentation and Registration Tool for Malunited Radius Osteotomy: A Proof-of-Concept Study". In: ***Results in Engineering*** 19 (2023), p. 101295. DOI: 10.1016/j.rineng.2023.101295.
18. Y. Xiang, J. B. Mendieta, **J. Wang**, et al. "Differences in Carotid Artery Geometry and Flow Caused by Body Postural Changes and Physical Exercise". In: ***Ultrasound in Medicine & Biology*** 49.3 (2023), pp. 820–830. DOI: 10.1016/j.ultrasmedbio.2022.11.009.
19. A. Tukova, Y. Nie, M. Tavakkoli Yaraki, et al. (incl. **J. Wang**). "Shape Dependent Protein-Induced Stabilization of Gold Nanoparticles: From a Protein Corona Perspective". In: ***Aggregate*** (2023), e323. DOI: 10.1002/agt2.323.

20. J. B. Mendieta, D. Fontanarosa, **J. Wang**, et al. "MRI-based Mechanical Analysis of Carotid Atherosclerotic Plaque Using a Material-Property-Mapping Approach: A Material-Property-Mapping Method for Plaque Stress Analysis". In: ***Computer Methods and Programs in Biomedicine*** (2023), p. 107417. DOI: 10.1016/j.cmpb.2023.107417.
21. **J. Wang***, R. Fang, H. Wu, et al. "Impact of Cyclic Bending on Coronary Hemodynamics". In: ***Biomechanics and Modeling in Mechanobiology*** 22 (2023), pp. 729–738. DOI: 10.1007/s10237-022-01677-z.
22. P. K. Paritala, H. Anbananthan, J. Hautaniemi, et al. (incl. **J. Wang**). "Reproducibility of the Computational Fluid Dynamic Analysis of a Cerebral Aneurysm Monitored over a Decade". In: ***Scientific Reports*** 13.1 (2023), p. 219. DOI: 10.1038/s41598-022-27354-w.
23. Y. Xiang, X. Huang, J. Benitez Mendieta, et al. (incl. **J. Wang**). "The Need to Shift from Morphological to Structural Assessment for Carotid Plaque Vulnerability". In: ***Biomedicines*** 10.12 (2022), p. 3038. DOI: 10.3390/biomedicines10123038.
24. H. Wu†, **J. Wang**†, J. A. Amaya Catano, C. Sun, and Z. Li. "Optical Coherence Elastography Based on Inverse Compositional Gauss-Newton Digital Volume Correlation with Second-Order Shape Function". In: ***Optics Express*** 30.23 (2022), pp. 41954–41968. DOI: 10.1364/OE.473898.
25. K. Xia, H. Zhan, J. Shao, et al. (incl. **J. Wang**). "Atomistic Investigation of Titanium Carbide Ti8C5 under Impact Loading". In: ***Metals*** 12.11 (2022), p. 1989. DOI: 10.3390/met12111989.
26. L. Wang, **J. Wang**, Q. Chen, et al. "How Getting Twisted in Scaffold Design Can Promote Bone Regeneration: A Fluid-Structure Interaction Evaluation". In: ***Journal of Biomechanics*** 145 (2022), p. 111359. DOI: 10.1016/j.jbiomech.2022.111359.
27. W. Gao, L. Xiao, **J. Wang**, et al. "The Hollow Porous Sphere Cell Carrier for the Dynamic 3D Cell Culture". In: ***Tissue Engineering. Part C, Methods*** 28.11 (2022), pp. 610–622. DOI: 10.1089/ten.TEC.2022.0137.
28. R. Fang, Z. Wang, X. Zhao, et al. (incl. **J. Wang**). "Stroke Risk Evaluation for Patients with Atrial Fibrillation: Insights from Left Atrial Appendage with Fluid-Structure Interaction Analysis". In: ***Computers in Biology and Medicine*** 148 (2022), p. 105897. DOI: 10.1016/j.compbiomed.2022.105897.
29. L. Wei, **J. Wang**, Q. Chen, and Z. Li. "Impact of Stent Malapposition on Intracoronary Flow Dynamics: An Optical Coherence Tomography-Based Patient-Specific Study". In: ***Medical Engineering & Physics*** 94 (2021), pp. 26–32. DOI: 10.1016/j.medengphy.2021.06.002.
30. P. K. Paritala, T. Yarlagadda, J. B. Mendieta, et al. (incl. **J. Wang**). "Plaque Longitudinal Heterogeneity in Morphology, Property, and Mechanobiology". In: ***Cerebrovascular Diseases*** 50.5 (2021), pp. 510–519. DOI: 10.1159/000515690.
31. J. Benitez, D. Fontanarosa, **J. Wang**, et al. "Evaluating the Impact of Calcification on Plaque Vulnerability from the Aspect of Mechanical Interaction Between Blood Flow and Artery Based on MRI". In: ***Annals of Biomedical Engineering*** 49.4 (2021), pp. 1169–1182. DOI: 10.1007/s10439-020-02655-1.
32. **J. Wang**, J. B. Mendieta, P. K. Paritala, et al. "Case Report: Evaluating Biomechanical Risk Factors in Carotid Stenosis by Patient-Specific Fluid-Structural Interaction Biomechanical Analysis". In: ***Cerebrovascular Diseases*** 50.3 (2021), pp. 262–269. DOI: 10.1159/000514138.
33. Y. Charles Zhao, P. Vatankhah, T. Goh, et al. (incl. **J. Wang**). "Computational Fluid Dynamics Simulations at Micro-Scale Stenosis for Microfluidic Thrombosis Model Characterization". In: ***Molecular & Cellular Biomechanics*** 18.1 (2021), pp. 1–10. DOI: 10.32604/mcb.2021.012598.
34. J. B. Mendieta, D. Fontanarosa, **J. Wang**, et al. "The Importance of Blood Rheology in Patient-Specific Computational Fluid Dynamics Simulation of Stenotic Carotid Arteries". In: ***Biomechanics and Modeling in Mechanobiology*** 19.5 (2020), pp. 1477–1490. DOI: 10.1007/s10237-019-01282-7.
35. C. He, **J. Wang**, Y. Yin, and Z. Li. "Automated Classification of Coronary Plaque Calcification in OCT Pullbacks with 3D Deep Neural Networks". In: ***Journal of Biomedical Optics*** 25.09 (2020), p. 095003. DOI: 10.1117/1.JBO.25.9.095003.
36. C. He, Z. Li, **J. Wang**, et al. "Atherosclerotic Plaque Tissue Characterization: An OCT-Based Machine Learning Algorithm With Ex Vivo Validation". In: ***Frontiers in Bioengineering and Biotechnology*** 8 (2020), p. 749. DOI: 10.3389/fbioe.2020.00749.
37. P. Kumari Paritala, T. Yarlagadda, J. Benitez Mendieta, et al. (incl. **J. Wang**). "Characterization of the Atherosclerotic Plaque Tissue". In: ***Advanced Materials Letters*** 11.5 (2020), pp. 1–7. DOI: 10.5185/amlett.2020.051507.
38. **J. Wang**, P. K. Paritala, J. B. Mendieta, et al. "Optical Coherence Tomography-Based Patient-Specific Coronary Artery Reconstruction and Fluid–Structure Interaction Simulation". In: ***Biomechanics and Modeling in Mechanobiology*** 19.1 (2020), pp. 7–20. DOI: 10.1007/s10237-019-01191-9.

39. P. K. Paritala, P. K. D. V. Yarlagadda, R. Kansky, et al. (incl. **J. Wang**). "Stress-Relaxation and Cyclic Behavior of Human Carotid Plaque Tissue". In: ***Frontiers in Bioengineering and Biotechnology*** 8 (2020), p. 60. DOI: 10.3389/fbioe.2020.00060.
40. **J. Wang**, P. K. Paritala, J. B. Mendieta, et al. "Carotid Bifurcation With Tandem Stenosis—A Patient-Specific Case Study Combined in Vivo Imaging, in Vitro Histology and in Silico Simulation". In: ***Frontiers in Bioengineering and Biotechnology*** 7 (2019), p. 349. DOI: 10.3389/fbioe.2019.00349.
41. Y. Huang, C. He, **J. Wang**, et al. "Intravascular Optical Coherence Tomography Image Segmentation Based on Support Vector Machine Algorithm". In: ***Molecular & Cellular Biomechanics*** 15.2 (2018), pp. 117–125. DOI: 10.3970/mcb.2018.02478.
42. P. K. Paritala, P. K. Yarlagadda, **J. Wang**, Y. Gu, and Z. Li. "Numerical Investigation of Atherosclerotic Plaque Rupture Using Optical Coherence Tomography Imaging and XFEM". In: ***Engineering Fracture Mechanics*** 204 (2018), pp. 531–541. DOI: 10.1016/j.engfracmech.2018.11.002.
43. A. Muhammad, Q. Liao, H. Wang, et al. (incl. **J. Wang**). "Transient Heat Transfer Performance of Stainless Steel Structured Surfaces Combined with Air-Water Spray Evaporative Cooling at High Temperature Scenarios". In: ***Applied Thermal Engineering*** 115 (2017), pp. 418–434. DOI: 10.1016/j.applthermaleng.2016.12.126.
44. C. He, **J. Wang**, Y. Huang, et al. "The Correlation Between Texture Features and Fibrous Cap Thickness of Lipid-Rich Atheroma Based on Optical Coherence Tomography Imaging". In: ***Molecular & Cellular Biomechanics*** 13.1 (2016), pp. 23–36. DOI: 10.3970/mcb.2016.013.027.

Fully Referenced Conference Papers

1. **J. Wang***, X. Xiao, Z. Huang, and A. Melzer. "3D-printing Based Transducer Holder for Robotic Assisted Ultrasound Guided HIFU". In: ***Procedia Manufacturing*** 30 (2019), pp. 3–10. DOI: 10.1016/j.promfg.2019.02.002.
2. P. K. Paritala, T. Yarlagadda, **J. Wang**, Y. T. Gu, and Z. Li. "Prediction of Atherosclerotic Plaque Life – Perceptions from Fatigue Analysis". In: ***Procedia Manufacturing*** 30 (2019), pp. 522–529. DOI: 10.1016/j.promfg.2019.02.073.
3. **J. Wang**, X. Xiao, R. Duncan, et al. "Thiel Soft Embalmed Porcine Kidney Perfusion Model for Focused Ultrasound Therapy". In: ***2015 IEEE International Ultrasonics Symposium (IUS)***. Taipei, Taiwan: IEEE, 2015, pp. 1–4. ISBN: 978-1-4799-8182-3. DOI: 10.1109/ULTSYM.2015.0506.

ABSTRACT

1. H. Wu, **J. Wang**, Z. Zhu, and Z. Li. "Computational Strain Analysis of Intracranial Aneurysm Based on 4D CT Angiographic Sequence". In: ***Cerebrovascular Diseases***. Vol. 52. 2023, pp. 240–240.
2. **J. Wang**, T. Barrick, M. Hall, et al. "Mathematically Constrained Intravoxel Incoherent Motion (IVIM)". In: ***Joint Annual Meeting ISMRM-ESMRMB ISMRT 31st Annual Meeting***. London, England, UK, 2022, p. 3043. DOI: 10.58530/2022/3043.
3. E. Pickering, **J. Wang**, L. Stickel, et al. "Assessment of Trabecular Bone Adaptation in Adolescent Idiopathic Scoliosis Due to Altered Bone Loading". In: ***12th Australasian Biomechanics Conference***. 2021, p. 98.

CONFERENCE

The 9th Asian Pacific Congress on Computational Mechanics / The 7th Australasian Conference on Computational Mechanics (APCOM-ACCM 2025) 12/2025
Brisbane, Australia

The 16th International Conference on Computational Methods (ICCM2025) 09/2025
Hangzhou, China

The 9th World Congress of Biomechanics (WCB 2022) 07/2022
Optical coherence elastography based on inverse compositional Gauss-Newton digital volume correlation with second-shape function (oral)
Patient-specific Coronary with Non-linear Cyclic Bending Achieved by Fluid-structure Interactive Model (poster)
Taipei

2022 Annual Meeting International Society for Magnetic Resonance in Medicine (ISMRM) 05/2022
Mathematically Constrained Intravoxel Incoherent Motion (IVIM) (digital poster)
London, United Kingdom

2019 The Australian Vascular Biology Society (AVBS) Scientific Meeting 09/2019
Carotid Bifurcation with Tandem Stenosis – A Patient-specific Case Study Combined Imaging, Histology and Computational Simulation (poster)
Sydney, Australia

Nature Biomimetics in Bioengineering 2019 08/2019
OCT-based 3D Patient-specific Coronary Reconstruction and FSI Simulation (poster)
Brisbane, Australia

Inaugural Herston Biofabrication Institute Conference 03/2019
Optical Coherence Tomography (OCT)-Based Patient-Specific Coronary Artery Reconstruction and Fluid-Structure Interaction (FSI) Simulation (poster)
Brisbane, Australia

Global Congress on Manufacturing and Management (GCMM) 12/2018
OCT-based 3D Patient-specific Coronary Reconstruction for Fluid-structure Interaction (FSI) Simulation (oral)
Brisbane, Australia

2018 The Australian Vascular Biology Society (AVBS) Scientific Meeting 11/2018
OCT-based 3D Patient-specific Coronary Reconstruction and Fluid-structure Interaction (FSI) Simulation (oral)
Adelaide, Australia

2015 IEEE International Ultrasonics Symposium (IUS) 10/2015
Thiel Soft Embalmed Porcine Kidney Perfusion Model for Focused Ultrasound Therapy (poster)
Taipei

The 23rd Congress of the European Association of Endoscopic Surgery (EAES) 06/2015
Robotic Assisted Ultrasound Guided HIFU (poster)
Bucharest, Romania

SUPERVISING EXPERIENCE

PhD Students (ongoing)

Mr Eric Chigozirim Obioma (associate supervisor) 2026 –
Advancing Biochar Microbiome Engineering with Computer Vision
*School of Computer Science and Digital Technologies, **London South Bank University**, United Kingdom*

Ms Chengxi Li (principal supervisor) 2025 –
Image-based Displacement and Strain Analysis in Cardiovascular Diseases
*School of Computer Science and Digital Technologies, **London South Bank University**, United Kingdom*

Mr Bisi Bode Kolawole (associate supervisor) 2025 –
Endoscopy Image Analysis in Inflammatory Bowel Disease (project commenced in 2022)
*School of Computer Science and Digital Technologies, **London South Bank University**, United Kingdom*

Mr Chenrui Qiu (associate supervisor) 2024 –
Intelligent solutions for scalable, mission-critical 6G networks
*School of Computer Science and Digital Technologies, **London South Bank University**, United Kingdom*

COMMUNITY SERVICE

Editorship

Associate Editor, Frontiers in Bioengineering and Biotechnology 2025 –
Innovative Measurement Techniques in Tissue Biomechanics: From Cellular to Whole-Body Models (topic)

Young Editorial Board Member, International Journal of Fluid Engineering (IJFE) 2025 –

Guest Associate Editor, Frontiers in Stroke 2024 –
Fluid-structural Interactive Modeling of Vascular Mechanics and Cerebral Hemodynamics (topic)

Reivew Editor, Frontiers in Bioengineering and Biotechnology 2024 – 2025
Motion Tracking and Deformation Analysis in Biomechanics (topic)

Committee Role

Technical Program Committee (TPC) Reviewer 2026
The IEEE 23rd International Symposium on Biomedical Imaging (ISBI)
London, United Kingdom

Member of the Technical Program Committees 2024
The 5th International Conference on Medical Imaging and Computer-Aided Diagnosis (MICAD 2024)
Manchester, United Kingdom

Organizing Committee Member 2022
The 2022 Conference on Integration of Data Science, Information Management and Digital Technology into Health and Medical Research Beijing International Frontier Science Dialogue
Gold Coast, Australia

Session Moderator 2022
The 9th World Congress of Biomechanics (WCB 2022)
Taipei

Scientific Review 2021
EU Partnership For Advanced Computing in Europe (PRACE) 24th Call for Project

Panel Review 2021
The 26th Congress of the European Society of Biomechanics
Milan, Italy

Editorial Panel, Session Co-chair 2018
Global Congress on Manufacturing and Management (GCMM)
Brisbane, Australia

Journal Review

Acta Biomaterialia
Applied Thermal Engineering
Archives of Computational Methods in Engineering
Biomechanics and Modeling in Mechanobiology
BioMedical Engineering OnLine
BMC Cardiovascular Disorders
Clinical Neurology and Neurosurgery
Clinical and Translational Medicine
Cogent Engineering
Computers in Biology and Medicine
Computer Methods in Biomechanics & Bio Engineering
Computer Methods and Programs in Biomedicine
Frontiers in Bioengineering and Biotechnology
Frontiers in Neurology
Frontiers in Physiology
Frontiers in Radiology
Heliyon
International Journal for Numerical Methods in Biomedical Engineering
Journal of Biomechanics
Journal of Biophotonics
Journal of Cardiothoracic Surgery
Journal of Clinical Medicine
Medical Engineering and Physics
Medical Physics
npj Cardiovascular Health
PeerJ
Physics of Fluids
Scientific Reports