

# JUSTAS BRAZAUSKAS

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EDUCATION	<b>PhD Computer Science, University of Cambridge</b> 09 2022 – Current Topic: <i>Sensor networks-backed applications in Smart Building context.</i> Supervised by Prof Alan Blackwell and Prof Ian Lewis.
	<b>MRes Sensor Technologies, University of Cambridge</b> 09 2021 – 09 2022 Dissertation: <i>Visual Communication Tools for CO2 Accumulation in Shared Spaces.</i> Key Modules: Interaction with Machine Learning, Robotics, Biosensors and Bioelectronics, Climate Change Mitigation.
	<b>BASc Sciences and Engineering, University College London</b> 09 2016 – 05 2019 Dissertation: <i>Stressed out Millennials and Wearable Devices.</i> Key Modules: Algorithms and Data Structures, Mathematical Methods, Programming, Game Theory, Cognitive Systems, Networked Systems, Connected Systems, Machine Learning, Nanotechnology, Internet of Things.
EXPERIENCE	<b>Machine Learning Architect, InferSens</b> <i>Part-time</i> 09 2022 – 04 2024 Developed a range of machine learning models for embedded devices, including the conversion of models from Python to C for low-power hardware execution. Integrated LoRa-based devices with live data visualization dashboards.
	<b>Research Assistant (Systems), Computer Laboratory, University of Cambridge</b> 09 2019 – 06 2021 Engaged in sensor networks research, focusing on BIM, BMS, and IoT stack interoperability within smart buildings. Supervised by Prof Ian Lewis and Prof Richard Mortier. Audited modules: <i>Affective Computing, Mobile and Sensor Systems.</i>
	<b>Research Assistant (HCI), UCL Interaction Centre, University College London</b> 06 2019 – 03 2020 Developed a physical computing toolkit to help school children learn computer science concepts through movement and embodied interaction. Supervised by Prof Yvonne Rogers.
	<b>Digital Consultant, TES Global</b> 10 2018 – 12 2018 Created and implemented a provisional recommendation engine based on matrix decomposition and conducted research to enhance the search algorithm for the product catalogue.
	<b>Visiting Researcher, York Centre for Systems Analysis, University of York</b> 07 2018 – 09 2018 Worked on the application of Evolving Computation in Materials (Evolution-in-Materio) and Reservoir Computing, utilizing Genetic Algorithms and Recurrent Neural Networks for modeling in-materio computing systems.
PUBLICATIONS	<b>Privacy-Preserving Crowd Counting and Localisation using Face Detection in Edge Devices.</b> 2024 <b>J. Brazauskas</b> , C. Jensen, M. Danish, I. Lewis, R. Mortier. <i>EdgeSys '24: Proceedings of the 7th International Workshop on Edge Systems, Analytics and Networking.</i>
	<b>Real-Time Data Visualisation on the Adaptive City Platform.</b> 2021 <b>J. Brazauskas</b> , R. Verma, V. Safronov, M. Danish, I. Lewis, R. Mortier. <i>BuildSys '21: Proceedings of the 8th ACM International Conference on Systems for Energy-Efficient Buildings, Cities, and Transportation.</i>
	<b>DataMoves: Entangling data and movement to support computer science education.</b> 2021 <b>J. Brazauskas</b> , S. Lechelt, E. Wood, R. Evans, S. Adams, E. McFarland, N. Marquardt, Y. Rogers. <i>Designing Interactive Systems Conference 2021</i> , pages 2068-2082.
	<b>Data Management for Building Information Modelling in a Real-Time Adaptive City Platform.</b> 2021 <b>J. Brazauskas</b> , R. Verma, V. Safronov, M. Danish, J. Merino, X. Xie, I. Lewis, R. Mortier. <i>arXiv preprint arXiv:2103.04924</i>
	<b>DeepDish: multi-object tracking with an off-the-shelf Raspberry Pi.</b> 2020 M. Danish, <b>J. Brazauskas</b> , R. Bricheno, I. Lewis, R. Mortier. <i>Proceedings of the Third ACM International Workshop on Edge Systems, Analytics and Networking</i>
	<b>DeepDish on a diet: low-latency, energy-efficient object-detection and tracking at the edge.</b> 2022 M. Danish, R. Verma, <b>J. Brazauskas</b> , I. Lewis, R. Mortier. <i>Proceedings of the 5th International Workshop on Edge Systems, Analytics and Networking</i>

	<b>RACER: Real-Time Automated Complex Event Recognition in Smart Environments.</b> R. Verma, <b>J. Brazauskas</b> , V. Safronov, M. Danish, I. Lewis, R. Mortier. <i>Proceedings of the 29th International Conference on Advances in Geographic Information Systems</i>	2021
	<b>SenseRT: A Streaming Architecture for Smart Building Sensors.</b> R. Verma, <b>Justas Brazauskas</b> , V. Safronov, M. Danish, J. Merino, X. Xie, I. Lewis, R. Mortier. <i>arXiv preprint arXiv:2103.09169</i>	2021
	<b>An openBIM approach to IoT integration with incomplete as-built data.</b> N. Moretti, J. Merino, <b>J. Brazauskas</b> , X. Xie, A.K. Parlikad. <i>Applied Sciences</i> , 10(22):8287.	2020
	<b>Towards Seamless and Protocol-Independent IoT Application Interoperability.</b> V. Safronov, <b>J. Brazauskas</b> , M. Danish, R. Verma, I. Lewis, R. Mortier. <i>Proceedings of the Twentieth ACM Workshop on Hot Topics in Networks</i> , pages 185-191.	2021
	<b>CDBB West Cambridge Digital Twin Lessons Learned.</b> I. Lewis, R. Mortier, <b>J. Brazauskas</b> , V. Safronov, R. Verma. <i>Cambridge University Information Services</i> , 2022.	2021
PROFESSIONAL SKILLS	<b>Dataviz and 3D:</b> D3.js, Tableau, P5.js, Processing, Rhino, Unity, Fusion 360 <b>Programming Languages:</b> Python, Javascript, Java, Matlab, Bash, SQL, C/C++ <b>Core Skills:</b> Git, L <sup>A</sup> T <sub>E</sub> X, AWS, CLI	
SHOWCASES	Exhibited selected works at the Noise Art Exhibition by Savage at UCL Exhibited selected works at the Bartlett Summer Show in '17 and '18.	11 2019 06 2017 - 06 2018
VOLUNTEERING	<b>STEAM Education Mentor, Camden STEAM Commission, London</b> Promoted scientific engagement and encouraged school children to pursue careers in STEAM at the Royal Free Hospital.  <b>Student Volunteer, Great Ormond Street Hospital, London</b> Presented novel tangible user interfaces developed at UCLIC to participants at the GOSH Open Day event.	10 2018 - 05 2019  07 2019