**UK-Canada Globalink Doctoral Exchange Scheme**

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| Date  12/04/2022 | | | | | |
| Family Name: Valman | | | First Name: Samuel | | |
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| **ACADEMIC BACKGROUND** | | | | | |
| Degree | Name of Discipline | Institution | | Country | Date |
| PhD | Engineering and Physical Sciences Research Council (EPSRC)  Geospatial Systems CDT – Engineering / Geography | University of Nottingham / Newcastle University | | United Kingdom | September 2021 - present |
| MRes | EPSRC: Geospatial Data Science: Geospatial Systems CDT – Engineering / Geography | University of Nottingham / Newcastle University | | United Kingdom | September 2020 – September 2021 |
| MSc (by research) | Geography | University of Nottingham | | United Kingdom | September 2018 – September 2019 |
| BSc (Hons) | Geography | University of Nottingham | | United Kingdom | September 2015 – July 2018 |
| **ACADEMIC, RESEARCH & NON-ACADEMIC WORK EXPERIENCE** | | | | | |
| Position held | Organisation | Department | | | Period  (mm/yy to mm/yy) |
| Research Assistant | University of Nottingham | School of Geography | | | 11/21 to Present  02/20 to 06/20 |
| Research Assistant | University of Nottingham/ USFS / NOAA / Deschutes Watershed Council | School of Geography | | | 04/20 to Present |
| Research Assistant | University of Nottingham/ UKSA/ Umeå University | School of Biosciences | | | 03/22 to Present |
| Research Assistant | University of Nottingham/ UK Space Agency | Human Rights Lab/ Department of Engineering | | | 09/21 to 03/22 |
| Research Assistant | University of Nottingham/ Templeton Charity | Human Rights Lab | | | 11/21 to 03/22 |
| Research Assistant | University of Nottingham/ World Wildlife Fund | Human Rights Lab / Department of Engineering | | | 08/21 to 09/21 |
| Research assistant | University of Nottingham/ USGS / US Army Core of Engineers | School of Geography | | | 06/20 to 09/20 |
| Administrative Assistant | North-West Leicestershire District Council | Council Housing | | | 01/20 to 03/20 |
| Shop Assistant | Desperate Measures Canoe shop | Sales floor | | | 03/18 to 09/20 |
| Outdoor Activity Leader | Groundwork South | Colne Valley Regional Park | | | 07/14 to 11/17 |
| **DESCRIPTION OF ACTIVITIES AT ACADEMIC INSTITUTIONS**  **Provide details of published papers, title of dissertation, and other relevant activities e.g. conferences, presentations, awards, public engagement, societies.** | | | | | |
| **Education:**  **Engineering and Physical Sciences Research Council (EPSRC): PhD Geospatial Systems – University of Nottingham and Newcastle University**  **Title:** Geospatial analysis and modelling of riverine systems: realising the potential for satellite supplied data assimilation.   * Awarded fully funded scholarship to Geospatial Systems CDT including £5000 PA research fund. Internal training courses are provided in leadership, data management, and responsible research.   **EPSRC: MRes – Geospatial Data Science University of Nottingham and Newcastle University**  **Title:** An assessment of the potential for cloud computing and satellite thermal infrared sensing to produce meaningful river temperature insights for hydropower operations  **UoN School funded: MSc by Research – University of Nottingham Geography**  **Title**: The criteria conundrum: Hydrological, ecological, chemical, and morphological environmental variables result in inconsistent classifications of Anthropogenic streams  **BSc Geography – University of Nottingham**  **Dissertation title:** Presence of the Inter-dam sequence in small dam systems  **Academic Employment**  **NERC urgency grant: Synergistic Fire and Floodplain Solutions** <http://gotw.nerc.ac.uk/list_full.asp?pcode=NE%2FV021443%2F1&cookieConsent=A>  Multi-disciplinary international team of researchers and data fieldwork assistants looking at how a restored river floodplain has coped with fire. Using Avian, aquatic, vegetation, soil, and remotely sensed data sources.   * Second paper scheduled to be submitted by August 2022   **Stage Zero River Restoration** (UoN, Portland University, NOAA, USFS, EA, Deschutes Watershed Council)   * Wrote and collated [www.StageZeroRiverRestoration.com](http://www.StageZeroRiverRestoration.com) with an international group of contributors, including webinar, and crowd sourced sitemap. * Carried out fieldwork on Whychus Creek Stage Zero project: Lidar total stations surveys, macro-invertebrates, and vegetation surveys.   **UK Space Agency: Permafrost in Sweden** (UoN Bioscience / UKSA/ Umeå University)   * Artificial Neural Network for satellite land use classification (trained with drone data) * Comparison with Radar land deformation to measure pollution from melting permafrost   **UK Space Agency: Slavery from Space - Slavery Risk Calculator**   * UK Space Agency, UoN Rights Lab * Satellite monitoring palm oil plantations in Malaysia and Indonesia * Monitoring illegal burn scars using high resolution imagery * International forest loss estimates using cloud computing * Ordering and processing proprietary high resolution satellite data   **World Wildlife Fund US: The Social and Ecological Impacts of Supply Chains**   * Finding illegal shrimp farms and development in Bangladeshi nature reserves using high resolution satellites and cloud computing * Paper in process of being submitted to Marine Studies Journal   **Templeton World Charity fund: Disaster assessment Bahamas**   * UoN Rights Lab, Templeton Charity * Batch processing and downloading Planet High Resolution imagery to monitor pre and post hurricane Dorian damage using Google Earth Engine.   **Mendrop Engineering Resources: FRAME – Channel change Model**   * USGS, US Army Core of Engineers, UoN Geography * Worked in an international group creating a sediment balance and channel change model primarily for the Mississippi River * Primarily data analysis and visualisation of model success through adapting the Alluvial Phase Space Diagram to enable its use in future projects. * Paper in progress still   **Research Excellence Framework Reports (REF**) – UoN Geography   * Contributed supporting evidence to REF reports for Blue-Green cities project * Costa-Rica vs Nicaragua International Court of Justice Case REF Report evidence collation   **Refereed publications**   * **Published**: Guiney, R., Santucci, E., Valman, S., Booth, A., Birley, A., Haynes, I., Marsh, S. and Mills, J., 2021. Integration and Analysis of Multi-Modal Geospatial Secondary Data to Inform Management of At-Risk Archaeological Sites. *ISPRS International Journal of Geo-Information*, *10*(9), p.575. * **Submitted**: Pugh, B; Colley, M; Dugdale, S; Edwards, P; Flitcroft, R; Holz, A; Johnson, M; Mariani, M; Means Brous, M; Meyer, K; Moffett, K; Renan, L; Schrodt, F; Thorne, C; Valman, S; Wijayratne, U; Field, R. A possible role for river restoration enhancing biodiversity through interaction with wildfire*. Global Ecology and Biography Journal* (Currently undergoing revisions suggested by reviewers) * **In process**: Jackson, B., Rodríguez Huerta, E. Valman, S., Blair, B., Boyd, D. and Sparks, J. Aquaculture, labour, and emissions in the Southwest Bangladesh and the Sundarbans Reserve Forest. Marine Studies Journal * Valman, S., Ives, C., Dugdale, S. and Johnson, M. The criteria conundrum: Hydrological, ecological, chemical, and morphological environmental variables result in inconsistent classifications of Anthropogenic streams. River Research and applications.   **Academic and environmental outreach**   * Produced a Wikipedia entries for the Blue-Green Cities water management to help increase engagement * Demonstrated fluvial processes to visiting Secondary school students using the water flume. * Demonstrated Cloud Computing introduction for Geospatial Data Science Masters students * Presented tutorial for Cloud Computing using Google Earth Engine to Freshwater lab group * Clean Rivers Trust Tar Pit restoration monitoring * Nottingham Wildlife Trust Volunteer (2019-2020) * Major to Minor Lizard monitoring (2019)   **Societies and Sports**   * Team Great Britain Kayaking (2016-2021) * Helping organise Nottingham World Championships (July 2022) * Coached Junior Development Squad kayaking (July 2021) * President of UoN Canoe Polo (2017-2018) * Vice-President of UoN Canoe Polo (2016-2017) * Kit Secretary of UoN Surf (2016-2017) | | | | | |
| **AREAS OF EXPERTISE AND INTEREST**  **Provide a maximum of 10 words that describe your area(s) of expertise and / or interest, please indicate if it is Expertise, Interest or Both.** | | | | | |
| Satellite remote sensing of river systems using cloud computing (Both) | | | | | |