

EMPLOYMENT

Postdoctoral researcher Umeå Universitet July 2020 – Present

I help biologist to explore and gain biological insights in large-scale data sets through new visualization tools & interaction methods. Therefore, I work in a joint research environment of the Department of Plant Physiology and collaboration with research groups at Vlaams Instituut voor Biotechnologie (VIB), Ghent, Belgium and the Norway spruce and Scots pine genome project team as a lead developer of PlantGenIE platform. I am integrating population-wide re-sequencing, Genome-Wide Association Study (GWAS) data and RNA-sequencing gene expression networks, including the production of new analysis and visualization tools. In addition, I use different Human-Computer Interaction (HCI) design principles and visualization techniques to improve the user experience (UX) and Graphical User Interface (GUI) of our tools.

PhD Umeå Universitet Oct 2014 – Jun 2020

PhD in Computational Science with specialization in Biology was focused on developing new tools and resources to enable non-specialists who lack bioinformatics skills to access, explore and extract new biological knowledge from a number of large-scale projects.

Research Engineer Umeå Universitet Sep 2010 – Oct 2014

Lead developer at PlantGenIE which is an interoperable web resource for searching, visualizing and analyzing genomics and transcriptomics data for different plant species. Currently, it includes several web resources such as popgenie.org, congenie.org, atgenie.org and eucgenie.org.

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|-------------------|--|---------------------|
| Software Engineer | JoyGroup, Almere, Netherlands | Jan 2010 – Sep 2010 |
| Software Engineer | Anterasoftware Pvt Ltd, Texas, USA | Jan 2009 - Aug 2010 |
| Software Engineer | GMI Pvt Ltd, Bellevue, USA | Jan 2008 - Dec 2008 |
| Software Engineer | London School of Marketing (LSM), London, UK | Jan 2007 - Jan 2008 |
| Software Engineer | Virtusa Pvt Ltd, Colombo, Sri Lanka | Nov 2006 - Dec 2007 |

EDUCATION

PhD in Computational Science with specialization in Biology: Umeå University, OCT 2014-JUN 2020.

MSc. in Human Computer Interaction: Umeå University - Sweden, FEB 2009-MAY 2011.

BSc. in Computer Science: University of Colombo - Sri Lanka, FEB 2004-AUG 2008.

Diploma in Management CIMA-UK 2002-2007.

Adobe Flex Certified Expert 2006.

LANGUAGES AND TECHNOLOGIES

- PHP, Python; Perl, SQL, R, C#, jQuery, Bootstrap, Angular, Larval, React
- TensorFlow, Google AI; MySQL, Node.js, VS Code; MongoDB; Adobe tools, NPM, Git

SELECTED PUBLICATIONS (5 out of 19)

- **Mannapperuma C.** Human-computer interaction principles for developing web-based genomics resources. Umeå Universitet; 2020. <http://urn.kb.se/resolve?urn=urn:nbn:se:umu:diva-153032>
- **Mannapperuma C,** Street N, Waterworth J. Designing usable Bioinformatics Tools for specialized users. In: ICITS'19 - The 2019 International Conference on Information Technology & Systems. Quito, Ecuador; 2019. http://doi.org/10.1007/978-3-030-11890-7_62
- **Mannapperuma C,** Waterworth J, Street N. GenIE-Sys: Genome Integrative Explorer System. bioRxiv [Internet]. 2019; Available from: <https://doi.org/10.1101/808881>
- **Mannapperuma, C.,** Sundell, D., Netotea, S., Delhomme, N., Lin, Y.-C., Sjödin, A., ... Street, R. N. (2015). The Plant Genome Integrative Explorer Resource: PlantGenIE.org. *The New Phytologist*, 208(4), 1149–1156. <http://doi.org/10.1111/nph.1355>
- Delhomme, N., Mähler, N., Schifftaler, B., Sundell, D., **Mannapperuma, C.,** Hvidsten, T. R., & Street, N. R. (2014). Guidelines for RNA-Seq data analysis. *Epigenesis Protocol*, 67, 1–24.

REFERENCES

- x Associate Professor Anna Croon Fors; Umeå university; acrooninformatik.umu.se; 0907866135;0703603050
- x Professor John Waterworth; Umeå university; jworth@informatik.umu.se; 0907866731;0738111440
- x Professor Stefan Jansson;Umeå Plant Science Centre; stefan.jansson@umu.se; 0907865354; 0703220136