**Liam Jed Thompson**

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**SUMMARY**

I am a highly skilled scientist with a strong understanding of biology combined with five years of experience in bioinformatics & related computational biology. Having completed a PhD in protein expression within the area of infectious diseases, I am experienced in setting & testing hypotheses. Interested in the intersection of big data & biology, I am driven to apply my analytical and “make a plan” skills within impactful settings. Coming from a broad multicultural society with many languages, clear communication and the ability to work efficiently in teams or independently are key strengths, as are adaptability and flexibility while maintaining a focus on timeous delivery of projects.

**EDUCATION**

* PhD (Molecular Medicine and Haematology - Jun 2012). Wits University, South Africa
* MSc with Distinction (Microbiology and Biotechnology - Jun 2006). Wits University, South Africa
* BSc Honours with Distinction (Microbiology and Biotechnology - May 2003). Wits University, South Africa
* Bachelor of Science (Majors in Microbiology and Biotechnology, Genetics and Developmental Biology - Apr 2002). Wits University, South Africa

**EMPLOYMENT & EXPERIENCE**

**Republify AB, Gothenburg, Sweden (Aug 2019 - Sep 2020)**

Deployed on a project at Västra Götalands Region in the informatics division to increase. My biggest contributions for this project have been as the main developer of two web services to allow informatics to more easily create, edit and maintain a unified, region wide glossary as well as code sets. This has allowed the team to function more effectively and efficiently and has helped it fulfill its mandate.

**Conservation Alpha, Mauritius, Remote Consulting (Apr-May 2019)**

A project focussed on rhinoceros population metrics where I was responsible for collating, cleaning and verifying the data for before entry into a central database.There was extensive use of Python, Jupyter and reproducible analysis practises.

**Gothenburg University, Laboratory of Dr Anders R Clausen, Sweden (Mar 2016 - Mar 2019)**

As the lab bioinformatician I am responsible for all data analysis related to the incorporation of rNTPs in genomes. This includes processing NGS files, data extraction, hypothesis testing, and graph generation. I have implemented Git version control for all scripts, pipelines and settings as well as virtual environments for run environment stability. I have added extra functionality to pipelines and written extensive documentation.

**Stockholm University, Laboratory of Prof. Klas Udekwu, Sweden (Aug 2015)**

I have worked on a consulting basis and focussed on bacterial 16s rRNA studies and the identification of bacterial signatures in samples isolated in connection with circadian rhythm analysis, as well as community-acquired antibiotic resistance studies. Requirements involved NGS data quality processing, sequence alignment and clustering of samples which I completed using Python, as well as collating results and associated statistics using R. I also delivered a short workshop on bioinformatics analysis for the lab.

**Sydney Brenner Institute for Molecular Bioscience (SBIMB), Bioinformatics Division, South Africa (Mar 2013 - Dec 2014)**

During this period, I was part of a team developing a web service that was to allow researchers within the Human Heredity & Health (H3Africa) Initiative to store data on the South Africa Grid (SAGrid). The project was piloted using Django and EMI middleware to interact with the SAGrid, and I was responsible in part for this portion of the project.

**Joburg Centre for Software Engineering (JCSE), South Africa (Jul 2012 - Nov 2012)**

During this period, I was part of a software team responsible for developing an application management system in C# .NET for continuous professional development courses. In addition, I played roles in project planning and product development. I learnt about LEAN software engineering principles here.

**Wits University, Antiviral Gene Therapy Research Unit, South Africa (Jan 2007 - Dec 2008)**

As co-manager of the Hepatitis B virus (HBV) transgenic mouse colony I was partly responsible for the coordination and management of the colony.

**The Council for Scientific and Industrial Research (CSIR), South Africa (Jan - Dec 2005)**

Working as a CSIR Intern in the lab of Dr Colin Kenyon I was responsible for establishing, testing and recording SOPs for the production of glutamate synthetase in fermentation bioreactors and subsequent purification.

**SKILLS**

**Data analysis & IT skills**

*Working Languages* - Python (Python, Django) and R. Bash, Javascript (intermediate proficiency).

*Analysis* - Python, Pandas, Numpy, Jupyter notebooks, R.

*Other* -Cluster environments, Linux (highly proficient), Git.

**Scientific lab research**

Experienced in many aspects and techniques of molecular and cellular biology including mammalian cell culture, protein expression in *E. coli*, yeast and mammalian systems, DNA vector design, cloning & generation, PCR, WB as well as data analysis and wrangling.

**COURSES**

* Svenska som andraspråk, SAS 1-3 (Sep 2015 - Feb 2016). Göteborg, Sweden
* Svenskundervisning för Invandrare (Nov 2014 - Sep 2015). Göteborg, Sweden
* Coursera Data Science, Bayesian Statistics, Machine Learning & Deep Learning (ongoing)

**INTERESTS**

I am a member of a variety of Bioinformatics-based meetup groups in Gothenburg, including Machine Learning and Data Science, GothPy and the Gothenburg Bioinformatics Network (Gotbin). I enjoy outdoor activities like skiing of any type, kayaking and hiking in the forests around Gothenburg and further afield with my wife and daughter. A swim in a cold lake followed by a fika is always a possibility.