Annie YIM

Data Scientist / Bioinformatician

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PhD candidate (Computational Biology) with 3+ years experience in analysing large volumes of biological data. Motivated and independent, committed to identifying and solving problems with proven analytical and organisational skills.

Education

2014 - 2018

Munich, Germany

Max Planck Institute of Biochemistry

PhD in Biology (Computational Biology)

(anticipated graduation in August 2018)

2013 - 2014

University of Edinburgh

Edinburgh, UK

MSc in Bioinformatics (with Distinction)

2009 - 2011

Chinese University of Hong Kong

Hong Kong

MPhil in Medicine

Experience

2014-10 - Current Munich, Germany

PhD Candidate (Computational Biology) Max Planck Institute of Biochemistry

- Analysed high volumes of sequencing data, with R packages and command line tools
- Launched and maintained a web-based analysis platform with interactive visualisations for expression data
 (Back-end: Python; Front-end: Javascript; Database: MySQL)
- · Designed analysis workflows for an online cancer database
- Presented in multiple international conferences/symposiums

2018-01 - 2018-04 Marseille, France

Research Intern

Developmental Biology Institute, Aix-Marseille University

- Analysed expression and methylation data of human liver cancer and a mouse cancer model
- · Performed clustering analysis to identify groups of cancer

2011-09 - 2013-08 Hong Kong

Research Assistant

Faculty of Medicine, The Chinese University of Hong Kong

- Gained expertise in molecular biology and imaging techniques through experimental research
- Designed and conducted multiple experimental, animal and territory-wide clinical research projects
- Performed statistical analysis on experimental and clinical research data

Courses and Workshop

Open Online Courses (Coursera)

- · Specialization in Deep Learning (5 courses)
- Big Data Analysis with Scala and Spark
- · Visual Analytics with Tableau

Workshop (Science Craft)

- · Data Analysis with R
- · Scientific Writing

Programming Languages

Python

Advanced

SQL

Advanced

Javascript

Intermediate

R

Intermediate

Scala



Skills

Exploratory
Data Analysis

Advanced

Data Visualisation (d3.js, Tableau)



Machine Learning (scikit-learn, tensorflow, keras)



Distributed System (Hadoop, Spark)



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Languages

English

Fluent

Beginner

Chinese

Fluent

German

Intermediate (B1/B2)

Publications

MitoXplorer - A Visualization Approach to Investigate Mitochondrial Functions in Aneuploidy Cells with RNA-seq Data

Yim, A. P.; Koti, P.; Dürrbaum, M. et al. (Manuscript in preparation)

Hypermethylation of gene body CpG islands predicts high dosage of functional oncogenes in liver cancer

Arechederra, M.; Daian, F.; **Yim, A. P.** et al. Nature Commun. (Publication in process)

Integrative analysis and machine learning on cancer genomics data using the Cancer Systems Biology Database (CancerSysDB)

Krempel, R.; Kulkarni, P.; Yim, A. P. et al. BMC Bioinformatics. 2018; 19 (1): pp.156

Abnormal Skeletal Growth in Adolescent Idiopathic Scoliosis Is Associated with Abnormal Quantitative Expression of Melatonin Receptor, MT2

Yim, A. P.; Yeung, H. Y.; Sun, G. et al. Int J Mol Sci. 2013; 14 (3): pp.6345-58

Abnormal skeletal growth patterns in adolescent idiopathic scoliosis-a longitudinal study until skeletal maturity

Yim, A. P.; Yeung, H. Y.; Hung, V. W. et al. Spine (Phila Pa 1976). 2012; 37 (18): pp.E1148-54

Conferences

2018-01 16th Asia Pacific Bioinformatics Conference

Yokohama, Japan Poster Presentation

Defective Electron Transport Chain Complex in Aneuploidy Cells - Exploring Mitochondrial Functions with RNA-seq Data

Using the MitoXplorer web-platform

2017-07 16th European Conference on Computational Biology

Prague, Czech Poster Presentation

Role of Mitochondria in the Occurrence of Cancer - A

Visualisation Approach

2016-11 9th INTERACT Life Science Symposium

Munich, Germany Poster Presentation

Visualising Expression Data of Mitochondrial Genes

Fellowships and Awards

Best Poster Award at 16th Asia Pacific Bioinformatics Conference, Yokohama, Japan (2018)

ERAMUS+ Internship Program for Higher Education Students, Marseille, France (2018)

PhD Program of International Max Planck Research School for Molecular Life Sciences, Munich, Germany (2014 - 2018)

Postgraduate Studentship from The Chinese University of Hong Kong, Hong Kong (2009 - 2011)

Activities

Organising Committee of the 10th INTERACT Life Science Symposium, Munich, Germany (2018)