

# Research IT: RSE and Apps Support

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Robert Haines

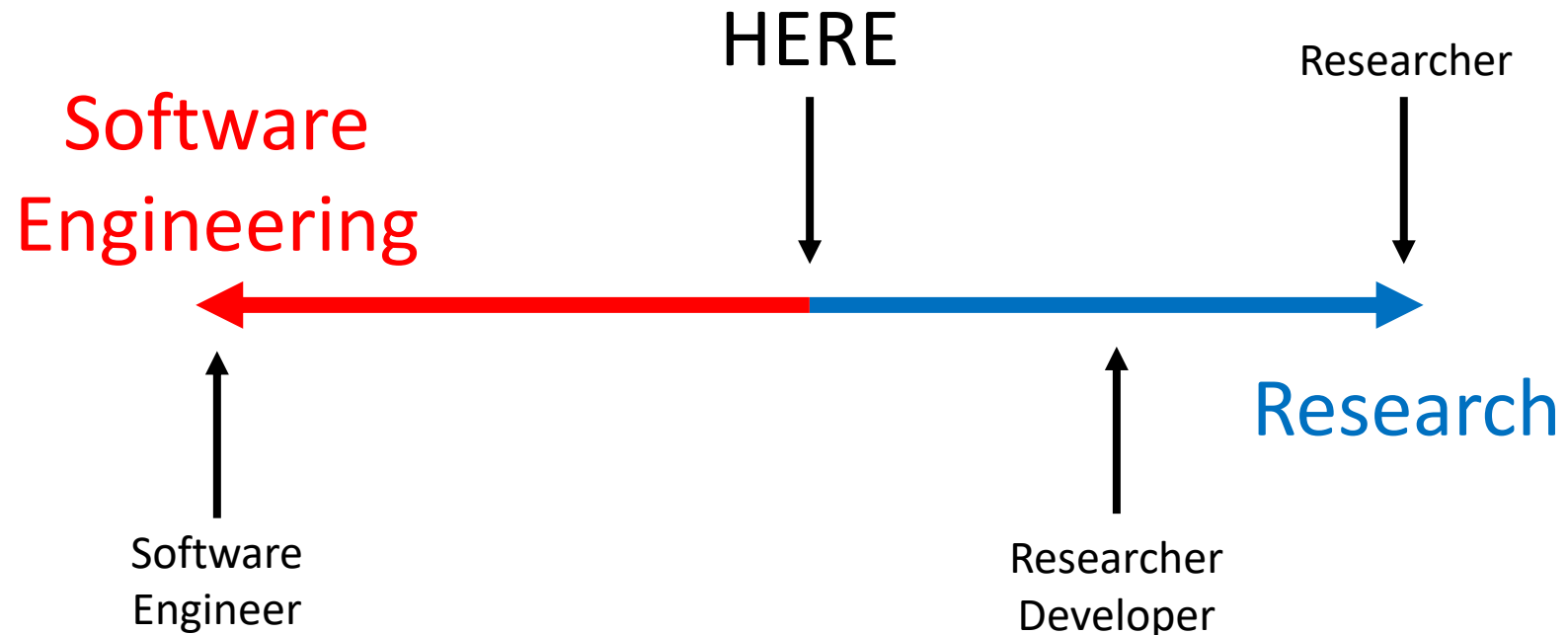
[robert.haines@manchester.ac.uk](mailto:robert.haines@manchester.ac.uk)

Research IT Club, 5<sup>th</sup> June 2018



**BETTER  
SOFTWARE  
BETTER  
RESEARCH**

# What is a Research Software Engineer?



# The Craftsperson and the Scholar



Image courtesy of Beinecke Library and bcom

James Hetherington: <http://www.software.ac.uk/blog/2012-11-09-craftsperson-and-scholar>

# Are you a Research Software Engineer?

- Are you employed to develop software for research?
- Are you spending more time developing software than conducting research?
- Are you employed as a postdoctoral researcher, even though you predominantly work on software development?
- Are you the person who “does computers” in your research group?
- Are you sometimes not named on research papers despite playing a fundamental part in developing the software used to create them?
- Do you lack the metrics needed to progress your academic career, like papers and conference presentations, despite having made a significant contribution through software?



# Join the UK RSE Community

- Careers
- Events
- Training
- International links
- [www.rse.ac.uk](http://www.rse.ac.uk)

RSE



# RSE noticeboard



# New RSE!

- Dr Ann Gledson
- Research Software Engineer / Data Scientist

Hi admin!  
logout

**CityVerve Data Dashboard**

Selected hubs...  
 BTE-Hub live  
 CityVerve-PoP live  
 Triangulum live

Search & Select streams from hub catalogues  
 Manual Select streams using IDs  
 Database streams Live and previous streams

Tag Names Data types Geo areas cURL Search Results

Hold down ctrl, drag mouse and click select to select areas on map (each area will be linked via 'OR')

SOLICA	Coordinates
2.2599391934636515	53.47797364272861
2.251613616681425	53.48154913194839
2.2358207700017374	53.46714318079627
2.2529869076970553	2.2529869076970553; 53.4761347031
2.2230319974187296	53.46341318282728
2.2381381985906046	2.2381381985906046; 53.46888032
2.227237701154081	2.227237701154081; 53.47919955

Selected Streams Methods Results  
 Analysis techniques Analysis Results

Time-Series Correlation Hierarchical Clustering

Enter parameters for correlation

Correlation is a statistical technique that can show whether and how strongly pairs of variables are related. An intelligent correlation

Select input streams:  
 Precipitation\_Rate  
 Arena  
 Deansgate  
 HighSt\_Arndale  
 Printworks  
 Spinningfields  
 Aquatic\_Centre

Select visualisation method(s):  
 Scatter plot with regression line  
 Result table with significance  
 Correlation matrix

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	Precipitation Rate	Arena	Deansgate	HighSt_Arndale	Printworks	Spinningfields	Aquatic Centre
Precipitation Rate	-						
Arena	0.19	-					
Deansgate	-0.46	-0.18	-				
HighSt_Arndale	-0.027	-0.74	-0.22	-			
Printworks	0.38	-0.14	-0.51	-0.034	-		
Spinningfields	-0.36	-0.11	0.79	-0.45	-0.25	-	
Aquatic Centre	-0.45	-0.12	0.71	-0.36	-0.33	0.68	-

Time-Series Correlation Hierarchical Clustering

Enter parameters for time series analysis

For modeling the observations over time to look for trends, seasonality and other cyclic patterns and allowing the prediction of future values

Submit Query

# Training and drop-in sessions



# Training courses: September onwards

- MATLAB programming course
- Fortran programming course
- Introduction to Linux/UNIX shell
- Introduction to Python
- Programming in Python
- Introduction to Data Visualization
- HPC training course CSF/DPSF
- Automation and Make
- LaTeX course (inc. UoM Thesis template)
- Data Analysis with R
- Version control with Git and GitHub
- More information + online courses here:  
<http://bit.ly/2w6TfC0>

Online

Online



# Drop in sessions

- Every two weeks around campus
- No appointment necessary
- Anything Research IT related
- If we can't solve your problem right away, we'll get back to you
- Come and see us (1400-1500):
  - 13<sup>th</sup> June, Michael Smith lounge area
  - 27<sup>th</sup> June, Alan Turing ground floor lounge
- See the blog/newsletter for other dates as they are announced



# Research Infrastructure noticeboard

# Updates

- The deadline for end-of-financial-year contributions to CSF has passed
  - Hardware orders are being processed
  - Contributions of ~150k including new Nvidia Volta GPUs
- Research Virtual Machine Infrastructure (RVMI)
  - Second-site hardware is currently being installed
  - This will improve the resilience of research VMs
- DPSF and CSF merger is progressing
  - Users will begin to see changes in July



# How to contact us

- Website:
  - <http://www.itservices.manchester.ac.uk/research/>
- IT Services Support Centre:
  - <https://supportcentre.manchester.ac.uk>
- Twitter:
  - [@UoM\\_eResearch](https://twitter.com/UoM_eResearch)
- Blog:
  - <https://researchitnews.org/>
  - Sign up to our newsletter here

