



Science and
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Facilities Council

Scientific Computing

SCD Apprentices

Matthew Richards, February 2024



Presenter introduction

- Ex-Computing Apprentice (Software Engineer)
- Started October 2017, finished January 2022
- Rotated around various teams in SCD as well as ISIS, Technology, RAL Space
- Full-time Software Engineer as of February 2022
- Working in DSEG, primarily on backend development
- Currently working on OperationsGateway, system for EPAC's diagnostic data
- SCD's apprentice coordinator (previously Tom Gowland/Dawn Geatches)



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Types of Apprentices

- Focus on apprentices that target post A-Level students
 - More mature candidates
 - Over 18 so less concerns with data centre work
- Mixture of static and rotational apprentices in SCD:
 - Static – apprentice works in one team for duration of their apprenticeship
 - Rotational – apprentice works in different teams throughout their time
- Software development and system administration are the primary roles that apprentices do
- No matter the type of apprenticeship, apprentices get 1 day per week to focus on their apprentice training

Software Engineer

- 4-year apprenticeship, rotational (mixture of 6 and 12-month rotations)
- L6 Digital & Technology Solutions (Software Engineer)
 - Qualification for IT professionals, with a software engineer specialism
 - Full BSc degree
- Delivered by Buckinghamshire New University as a hybrid offering
 - Previously QA Apprenticeships

Software Engineer

Level 4	Level 5	Level 6
Computer Architectures	Object Oriented Systems Development	Advanced Programming
Programming Concepts	Web Applications	Enterprise Systems Development
Networking	Software Engineering	Design Patterns
Web Development	Mobile Systems	Data Structures and Algorithms
Investigating Work-based Learning and Self-review	Action Inquiry in the Workplace Context	Synoptic Project
Understanding Reflective Practice and Enquiry-based Learning	Organisation Skills and Behaviours	



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DevOps Engineer

- 2-year apprenticeship, static
- L4 DevOps Engineer (equivalent to HNC/first year of uni)
- Delivered by Estio as a remote course
- No apprenticeship standard for sys admin work, DevOps Engineer is a good alternative
- Open to having a rotational DevOps Apprenticeship, not enough teams interested to create rotations currently

Phase	Month	Training Modules	Length	Session Times
Phase 1		Induction & Onboarding	1-2 days	All trainer-led training days are delivered online and run from 9.30am to 4.30pm. Morning, afternoon and lunch breaks are provided.
Phase 2	1	Introduction to DevOps	4 days	
	3	Linux	4 days	
	5	Cloud Platforms	8 days	
	7	Infrastructure as Code	8 days	
	9	Immutable Infrastructure	5 days	
	11	Databases: SQL & No-SQL	5 days	
	13	Scripting, Coding & Automated Testing	5 days	
	15	Continuous Integration / Continuous Delivery	4 days	
	17	Security	2 days	
	19	Monitoring & Alerting	3 days	
Phase 3	20	Assessment Gateway and EPA Preparation	2 days	
Phase 4		End Point Assessment	4 months	

Accessing Apprenticeship Effort

One-Off:

- Contact Matthew Richards who may be able place an apprentice in your team

Regular Rotations or Full-Time Apprenticeship:

- Recruit a new apprentice to join the department – for 2025, let me know that you're interested around August/September 2024

Funding:

- Depends on when the apprentice was recruited
- Apprentices prior to 2023 are funded by departments/projects
- All apprentices recruited from 2023 onwards are centrally funded (part of STFC Skills Centre)
 - 'free-ish' staff effort? Not really – remember the supervision capacity

2024 Recruitment Timeline

Stage	Date
Send out EOIs	Early EOI sent out July – to be returned by Friday 01 September to collate numbers. Full EOIs to be sent out in early September to be completed with full vacancy details (Apprenticeship Team will support hiring managers)
EOI Completion Deadline	By 17 November 2023
Go Live	Week commencing 08 January 2024
Applications Close	Sunday 18 February 2024
Screening Deadlines	Friday 01 March
Interviews	March 2024 (To be completed by 29 March)

Final Thoughts

- Open to recruiting apprentices in different roles in future years
- If you'd like an apprentice to work in your team, let me know
- For apprentice queries, please contact me (matthew.richards@stfc.ac.uk)
- Always happy to answer any questions – my desk is right next to CR02 on 2nd floor of R89



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Thank you

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