# Dr. Phillip Smith

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## Personal Summary

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|---|---|
| 2010-2015 | PhD in **Computer Science**, University of Birmingham. |
| | **Thesis title:** Sentiment Analysis of Patient Feedback |
| 2006-2009 | BSc in **Computer Science**, University of Birmingham. |
| | **Final grade:** First class with honours. |

## Career to Date

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|---|---|
| 2017-pres. | **Lecturer - Teaching Focused** (School of Computer Science, University of Birmingham) |
| 2014–2016 | **Assistant Lecturer** (Department of Engineering, Environment and Computing, Coventry University) |
| 2014 | **Researcher** (Blue Vine Consultants, Birmingham) |
| 2013–2014 | **Senior Teaching Associate** (School of Computer Science, University of Birmingham) |
| 2011–2013 | **Teaching Assistant** (School of Computer Science, University of Birmingham) |
| 2009–2010 | **Software Engineer** (Rapide Communication, University of Warwick Science Park) |

## Education

### Current Teaching Activities

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|---|---|
| 2021-pres. | **Module Lead** Programming for Data Science (Level 4/M, PG, Autumn, 20 credits).<br>**Module Lead** Data Science Group Project (Level 4/M, PG, Spring, 20 credits). |
| 2020-pres. | **Personal Development** Postgraduate Certificate in Higher Education. |

### Teaching Vision

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|---|---|
| 2021-2026 | Develop a research-focused Computational Linguistics module (Level 3/H or 4/M).<br>Develop Programming & Data Analysis modules for the wider university community.<br>Lead the development of a Data Science BSc. programme.<br>Progress to Head of Education role in the School of Computer Science or teaching leadership role in the College of Engineering and Physical Sciences. |

### Principal Education-related Achievements

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|---|---|
| 2021 | Designed and led two new modules for the MSc Data Science programme. |
| 2020 | Designed, implemented and coordinated School-wide Bridging Coursework Assessment to prepare and help students progress to future years of study during the first lockdown. |
| 2020 | Awarded Fellowship of the HEA via Beacon scheme. |
| 2018 | Led £75,000 upgrade to robotic teaching facilities for Robot Programming and Artificial Intelligence in Edgbaston and Dubai Campus. |

## Teaching Design and Delivery

| | |
|---|---|
| 2021-pres. | **Module Lead** Programming for Data Science (Level 4/M, PG, Autumn, 20 credits) |
| | **Module Lead** Data Science Group Project (Level 4/M, PG, Spring, 20 credits) |
| 2020-2021 | **Module Lead** Programming for Data Science (Level 4/M, PG, Autumn, 20 credits) |
| | **Lecturer** Storing and Managing Data (Level 4/M, PG, Autumn, 20 credits) |
| | **Module Lead** Data Science Group Project (Level 4/M, PG, Spring) |
| 2019-2020 | **Module Lead** Artificial Intelligence (Level 1/C, UG, Spring, 20 credits) |
| | **Module Lead** MSc Operating Systems and Networks (Level 4/M, PG, Spring, 10 credits) |
| | **Module Lead** ICY Operating Systems and Networks (Level 1/C I, UG, Spring, 10 credits) |
| 2018-2019 | **Module Lead** Professional Computing (Level 2/I, UG, Autumn, 10 credits) |
| | **Module Lead** Artificial Intelligence (Level 1/C, UG, Spring, 20 credits) |
| | **Module Lead** MSc Operating Systems and Networks (Level 4/M, PG, Spring, 10 credits) |
| | **Module Lead** ICY Operating Systems and Networks (Level 1/C I, UG, Spring, 10 credits) |
| 2017-2018 | **Module Lead** Professional Computing (Level 2/I, UG, Autumn, 10 credits) |
| | **Module Lead** Robot Programming (Level 1/C, UG, Spring, 10 credits) |
| | **Module Lead** MSc Operating Systems and Networks (Level 4/M, PG, Spring, 10 credits) |
| | **Module Lead** ICY Operating Systems and Networks (Level 1/C I, UG, Spring, 10 credits) |
| 2017 | **Module Lead** MSc Operating Systems and Networks (Level 4/M, PG, Spring, 10 credits) |
| | **Module Lead** ICY Operating Systems and Networks (Level 1/C I, UG, Spring, 10 credits) |
| | **Lecturer** Mobile and Ubiquitous Computing (Extended) (Level 4/M, PG, Spring, 10 credits) |

## Innovation and Enhancement

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| 2021 | Pioneered collaborative, real-world assessment for MSc Data Science students in Data Science Group Project module. |
| 2020 | Collaborated with Computing Support Team to implement JupyterHub programming platform. |
| 2020 | Involved with cross-campus planning for use of AWS Educate platform. |
| 2018 | Led £75,000 upgrade to robotic teaching facilities for Robot Programming and Artificial Intelligence in Edgbaston and Dubai Campus. |
| 2017 | Earlier adopter of Panopto system to record and distribute all of my lectures online. |

## Teaching Leadership

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|---|---|
| 2021-pres. | Enrolled on POD Academic Team Leader programme. |
| 2018-pres. | Active member of the School of Computer Science Education Committee. |
| 2018-pres. | Active member of the School of Computer Science Quality Committee. |
| 2017-pres. | Module leadership as above in Teaching Design and Delivery |

## Teaching-related Research

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| 2020-2021 | Analysis of module feedback results across School. |

## Teaching related outputs

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|---|---|
| 2019 | Development of automated-marking platform for Robot Programming assignments. |

### Supervision of programmes and students

Past Postgraduate Project Students:

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|---|---|
| 2021 | **Hamdah Almalki, Melissa Yasmina Chauffour, Jiedong Cen, Xiya Chen, Tesni Filzek, George Harvey, Roger Hayllar, Kosare Ilieva, Luke Magnet, Martin Mitev, Amber Qureshi, Neela Rai, Tauseef Rehman, Harrison Wurf, Yajun Zhu.** MSc (Taught): Data Science/Artificial Intelligence and Machine Learning/Computer Science; Supervisor. |
| 2020 | **Zakaria Hussein.** Computer Science; Supervisor. |
| 2019 | **Jeremiah Akpotohwo, Tim Brackfield, Junqi Cheng, Elliot Gordon, Samuel Graham, Gregory Kelly, Shuo Liu, Majord Nagra, Dilip Samra, Edwin Simpson, Marcus Watts, Zeju Wu.** MSc (Taught): Computer Science; Supervisor. |
| 2018 | **Sarah Alduayj, Ishmael Aqsar, Ioana Avirvarei, Dalveer Basi, Shazia Kayani, Ching-Yee Lo, Harry Pratten, Maria Ruan, Kushal Savjani, Rui Zhang.** MSc (Taught): Computer Science; Supervisor. |
| 2017 | **Matthew Bynre, Thomas Hendra, Kristian Memarzia, Kavita Patel, Rebecca Plant, Kasra Solhdar, Qiyan You.** MSc (Taught): Computer Science; Supervisor. |

Past (and Present) Undergraduate Project Students:

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| 2021-pres. | **Lauren Alie, James Bartlett, Daniel Bray, Philip Broadley, Ali Cagatay, Daniel Edwards, Nadir Osman, Mircea-Andrei Radu, Shaylan Rao, Adriana Ungureanu.** BSc/MSci CS; Supervisor. |
| 2020-2021 | **Jakir Ashraf, Paul Byrne, Philip Eagles, Emre Hakansoy, Kieran Mason, Killu-Smila Palk, Thomas Soppitt, Catalin Tudor.** BSc/MSci CS; Supervisor. |
| 2019-2020 | **Olivia Breen, Cristian-Constantin Calauz, Eligh John, Christopher McVeigh, Jamie Moloney, Ivan Panchev.** BSc/MSci CS; Supervisor. |
| 2018-2019 | **Matthias Casula, Yiu Wai Chu, Vu Hoang, Alice Pilgrim, Bradley Rowe, Dilyan Skulev, Haohui Zhang, Chuqi Zheng.** BSc/MSci CS; Supervisor. |

### Any other significant teaching or teaching-related activities

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|---|---|
| 2021-2025 | **External Examiner** University of Worcester, BSc (Hons.) Computing. |
| 2021 | **External Panel Member** BEng Robotics and Artificial Intelligence Validation, University of Hertfordshire franchise PSB Academy Singapore. |
| 2021 | **External Subject Expert** MSc AI and Human Factors, Coventry University. |
| 2019-2022 | **External Examiner** University of Staffordshire, BSc (Hons.) Web Design. |
| 2018-pres. | **Degree Apprenticeship Tutor** (School of Computer Science, PwC and Vodafone Students). |
| 2017-pres. | **Personal Academic Tutor** |

## Research

### Research Interests

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| 2010-pres. | Primarily, I am interested in computational linguistics, machine learning and sentiment analysis. I work on practical applications of this technology in new and interesting ways. |

### Research Vision

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|---|---|
| 2021-2026 | Further investigate the effects of discourse function on sentiment analysis and natural language understanding algorithms. |

## Research grants and awards

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|---|---|
| 2019-2021 | **Co-investigator**: Interdisciplinary Wellcome Trust Seed Awards in Science project between Psychology and Computer Science at the University of Birmingham on the topic of Mindreading, Psychopathological and Social Adjustment in Middle Childhood. |

## Principal research publications

Abdullah I. Alharbi, Phillip Smith and Mark Lee (2022) "Integrating character-level and word-level representation for affect in Arabic tweets" in Data & Knowledge Engineering, Elsevier.

Venelin Kovatchev, Phillip Smith, Mark Lee & Rory Devine (2021) "Can vectors read minds better than experts? Comparing data augmentation strategies for the automated scoring of childrens mindreading ability", in Proceedings of the ACL-IJCNLP 2021.

Venelin Kovatchev, Phillip Smith, Mark Lee, Imogen Grumley Traynor, Irene Luque Aguilera & Rory Devine (2020) "What is on your mind? Automated Scoring of Mindreading in Childhood and Early Adolescence", in Proceedings of the 28th International Conference on Computational Linguistics, COLING, pp 6217-6228.

Phillip Smith & Mark Lee (2012) "Cross-discourse Development of Supervised Sentiment Analysis in the Clinical Domain", in Proceedings of the 3rd Workshop on Computational Approaches to Subjectivity and Sentiment Analysis, Association for Computational Linguistics (ACL), pp 79-83.

## Research publications accepted for publication or in press

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## Other significant research outputs

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## Research metrics

Citation count: 47

## Research student supervision and completions

School of Computer Science, University of Birmingham:

1. **Katie Mae Potts (PhD Candidate):** September 2021-present.
2. **Shareefa Ahmed A Al Amer (PhD Candidate):** January 2021-present.
3. **Rizwan Idrees (PhD Candidate):** January 2021-present.
4. **Wei Li (PhD Candidate):** February 2020-present.
5. **Ohoud Yahya A Alzahrani (PhD Candidate):** November 2019-present.
6. **Tuba Gokhan (PhD Candidate):** May 2019-present.
7. **Shatha Ali A Hakami (PhD Candidate):** January 2019-present.
8. **Maria Legatt (PhD Candidate):** March 2018-present.

9. **Abdullah Ibrahim M Alharbi (PhD Candidate):** January 2018-present. Writing up thesis.
10. **Alaa Ali H Alharbi (PhD Candidate):** December 2017-present. Writing up thesis.
11. **Ghadi Mohammed S. Alnafesah (PhD Candidate):** September 2017-present. Writing up thesis.

Thesis Group member:

1. **Reem Alanazi (PhD Candidate)**

### Any other significant research or research-related activities

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|---|---|
| 2021-pres. | **Principal Investigator** Data Study Group, Alan Turing Institute. |
| 2021 | **Attendee** Healthcare Incidents: Integrating Qualitative and Big Data Institute for Advance Studies Workshop |
| 2021 | **Reviewer** Journal of Software: Practice and Experience |

## Enterprise, Engagement and Impact (EEI)

### Current EEI Activities

Current EEI activities have stemmed from my outreach work in education and careers.

### EEI Vision

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|---|---|
| 2021-2026 | Actively search for future consulting opportunities.<br>Maintain the success of the Computer Science Career's Fair by working with more employers from the tech industry. |

### Knowledge Transfer and Exchange

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|---|---|
| 2017-2018 | **Co-investigator**: Research project between Alta Innovations Limited & Birmingham City Council assessing the potential of Sentiment Analysis for Public Health. |

### Influence and Impact

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### Widening Participation

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### External Engagement

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|---|---|
| 2018 | **Workshop Organiser**: Association of Graduate Careers Advisory Services (AGCAS) Conference - *"Will a robot take your job? How susceptible are our jobs to computerisation?* |
| 2016-2019 | **Computing at School Assessor** |
| 2013-pres. | **Science, Technology & Engineering At King's School (STEAKS) Committee Member** The King's School, Gloucester. |

### Commercial, entrepreneurial or industrial products, policy publications, evidence synthesis pieces

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## Leadership and Management

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| 2021-pres. | **Senior Tutor** |
| 2019-2021 | **Head of Student Development and Support** |
| 2019-pres | **Chair of Staff-Student Forum** |
| 2019-pres. | **NSS Champion** |
| 2019-2020 | **Admissions Tutor** - MSc. Advanced Computer Science & MSc. Data Science |

## Citizenship

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| 2020-pres. | **BCS Accreditation Working Group Member** |
| 2020-pres. | **Module Evaluation Questionnaire Working Group Co-lead** |
| 2020-pres. | **Transition to University Computer Science Lead** - College-level Committee |
| 2018-pres. | **Teaching Observation for Colleagues**. |
| 2018-pres. | **Careers Tutor** - School of Computer Science |
| 2017-2018 | **Welfare Tutor** - School of Computer Science |
| 2017-pres. | **Graduation Processor** - Summer & Winter Ceremonies. |

## Equality, Diversity and Inclusion

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| 2019-pres. | **Active Member School of Computer Science EDI Committee** |
| 2017-2019 | **Access to Birmingham (A2B) Computer Science Academic Lead** |

## Appendix A - Publications

Abdullah I. Alharbi, Phillip Smith and Mark Lee (2022) "Integrating character-level and word-level representation for affect in Arabic tweets" in Data & Knowledge Engineering, Elsevier.

Tuba Gokhan, Phillip Smith & Mark Lee (2021) "Extractive Financial Narrative Summarisation using SentenceBERT Based Clustering" in Proceedings of the 3rd Financial Narrative Processing Workshop, ACL, pp.94-98.

Venelin Kovatchev, Phillip Smith, Mark Lee & Rory Devine (2021) "Can vectors read minds better than experts? Comparing data augmentation strategies for the automated scoring of childrens mindreading ability", in Proceedings of the ACL-IJCNLP 2021.

Abdullah I. Alharbi, Phillip Smith & Mark Lee (2021) "Enhancing Contextualised Language Models with Static Character and Word Embeddings for Emotional Intensity and Sentiment Strength Detection in Arabic Tweets" in Procedia Computer Science Vol. 189, Elsevier, pp.258-265.

Shatha Ali A. Hakami, Robert Hendley & Phillip Smith (2021) "Arabic Emoji Sentiment Lexicon (Arab-ESL): A Comparison between Arabic and European Emoji Sentiment Lexicons", in Proceedings of the Sixth Arabic Natural Language Processing Workshop (WANLP), EACL, pp. 60-71.

Venelin Kovatchev, Phillip Smith, Mark Lee, Imogen Grumley Traynor, Irene Luque Aguilera & Rory Devine (2020) "What is on your mind? Automated Scoring of Mindreading in Childhood and Early Adolescence", in Proceedings of the 28th International Conference on Computational Linguistics, COLING, pp 6217-6228.

Shatha Ali A. Hakami, Robert Hendley & Phillip Smith (2020) "Emoji as Sentiment Indicators: An Investigative Case Study in Arabic Text", in Proceedings of the Sixth International Conference on Human and Social Analytics, IARIA, pp 26-32.

Sarah S. Alduayj & Phillip Smith (2019) "Sentiment Classification and Prediction of Job Interview Performance", in Proceedings of the 2nd International Conference on Computer Applications and Information Security (ICCAIS 2019). IEEE, pp. 1-6.

Phillip Smith & Mark Lee (2015) "Sentiment Classification via a Response Recalibration Framework", in Proceedings of the 6th Workshop on Computational Approaches to Subjectivity, Sentiment and Social Media Analysis (WASSA), ACL, pp. 75-80.

Phillip Smith & Mark Lee (2014) "Acknowledging Discourse Function for Sentiment Analysis", in Proceedings of the 15th Conference on Intelligent Text Processing and Computational Linguistics (CICLing), Lecture Notes in Computer Science, Springer, pp 45-53.

Phillip Smith & Mark Lee (2013) "Fine-Grained Sentiment Analysis in Microtext", American Association for Artificial Intelligence (AAAI) Spring Symposium on Analyzing Microtext 2013, pp 80-86.

Phillip Smith & Mark Lee (2012) "Cross-discourse Development of Supervised Sentiment Analysis in the Clinical Domain", in Proceedings of the 3rd Workshop on Computational Approaches to Subjectivity and Sentiment Analysis, Association for Computational Linguistics (ACL), pp 79-83.

Phillip Smith & Mark Lee (2012) “A CCG-Based Approach to Fine-Grained Sentiment Analysis”, in Proceedings of the 2nd Workshop on Sentiment Analysis where AI meets Psychology, International Conference on Computational Linguistics (COLING) 2012, pp 3-16.