JONATHAN WINDLE

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PERSONAL STATEMENT

I find the application of Artificial Intelligence fascinating and have spent five years focusing on this field. I'm currently a graduate researcher in speech-driven gesture animation. Having previously been a Research Associate in the application of machine learning in cybersecurity. I'm looking to apply these skills in industry.

EXPERIENCE

Graduate Researcher

University of East Anglia — Oct 2020 – Present

Digital Humans: Automatic Character Animation

- Multiple publications and conference talks
- Developed cutting-edge multimodal (audio and text) generative models for speech-to-animation, including diffusion models
- Harnessed Large Language Model (LLM) features

Research Associate

University of East Anglia — Jun 2019 – September 2020

- Research to determine personally identifiable data based on keystroke dynamics.
- Designed machine learning experiments.
- Developed a data processing pipeline to be used on current and future datasets.
- Developed online data gathering platform.
- Contributed towards academic papers.
- Collaborating with other research groups.
- Experience of the ethics application process.

Associate Tutor

University of East Anglia — Sep 2019 – Present

- Providing support on Artificial Intelligence, Architectures & Operating Systems, Ubiquitous Computing, Programming and Data Structures and Algorithms modules
- Assisted students in Laboratory sessions, providing constructing feedback and informative presentations

Software Developer Intern

Boeing Defence UK — Jul 2017 – Sep 2018

- Experienced in industry leading Research and Development (R&D) business area.
- Delivered business-critical software to the Ministry of Defence (MoD).
- Worked on prototype software for automated object detection using location and sensor data.
- Worked on a full-stack website development project.
- Gained quick code implementation, prototyping and experimental skills.
- Built test service to automate, execute and calculate test metrics.
- Experienced requirements gathering and current landscape analysis.
- Employee Involvement vice-captain. A leader in encouraging good team practices, active team involvement, improvements and cost reduction initiatives.

EDUCATION

PhD in Artificial Intelligence

University of East Anglia

Oct 2020 – Present

Thesis title: Digital Humans: Automatic Character Animation

B.Sc. Hons: Computing Science with a year in industry - First Class

University of East Anglia

Sep 2015 – Jun 2019

ACADEMIC SKILLS

- Experimental Procedure
- Collaboration
- Technical Communication
- Time Management
- Academic Writing
- Curiosity

RELEVANT SKILLS

- Programming Languages

Python | Java | C | C++

- Machine Learning Libraries

PyTorch | Numpy | SciKit-Learn | Keras | Pandas | Weights & Biases

- Development Tools

GIT | Trello | Jira | Docker

- Operating Systems

MacOS | Unix/Linux | Windows

ACADEMIC PRIZES

Final Year Assessment Prize

University of East Anglia — 2019

Awarded the prize for "distinguished performance in the Final Assessment" after achieving an average grade of 85% in the final year.

BCS East Anglia Prize

University of East Anglia — 2017

Achieved an average grade of 87% for my studies in year two and was awarded the prize for "The best performance from a Computing School B.Sc. student".

PUBLICATIONS

Journal Articles

- **J. Windle**, I. Matthews, and S. Taylor, "Llanimation: Llama driven animation," *ACM Trans. Graph.*, 2024, **UNDER REVIEW**.
- O. Buckley, D. Hodges, **J. Windle**, and S. Earl, "Clicka: Collecting and leveraging identity cues with keystroke dynamics," *Computers & Security*, vol. 120, p. 102 780, 2022.
- **J. Windle**, S. Taylor, D. Greenwood, and I. Matthews, "Arm motion symmetry in conversation," *Speech Communication*, vol. 144, pp. 75–88, 2022, ISSN: 0167-6393. DOI: https://doi.org/10.1016/j.specom.2022.08.001.

Conference Proceedings

- **J. Windle**, I. Matthews, and S. Taylor, "Style conditioned speech-to-gesture generation with long-term context," in *Proceedings of the European Conference on Computer Vision*, **UNDER REVIEW**, 2024.
- **J. Windle**, I. Matthews, B. Milner, and S. Taylor, "The uea digital humans entry to the genea challenge 2023," in *Proceedings of the 25th International Conference on Multimodal Interaction*, ser. ICMI '23, <conf-loc>, <city>Paris</city>, <country>France</country>, </conf-loc>: Association for Computing Machinery, 2023, pp. 802–810, ISBN: 9798400700552. DOI: 10.1145/3577190.3616116.
- **J. Windle**, D. Greenwood, and S. Taylor, "Uea digital humans entry to the genea challenge 2022," in *Proceedings of the 2022 International Conference on Multimodal Interaction*, ser. ICMI '22, Bengaluru, India: Association for Computing Machinery, 2022, pp. 771–777, ISBN: 9781450393904. DOI: 10.1145/3536221.3558065.
- **J. Windle**, S. Taylor, D. Greenwood, and I. Matthews, "Pose augmentation: Mirror the right way," in *Proceedings of the 22nd ACM International Conference on Intelligent Virtual Agents*, ser. IVA '22, Faro, Portugal: Association for Computing Machinery, 2022, ISBN: 9781450392488. DOI: 10.1145/3514197.3549677.
- S. Taylor, **J. Windle**, D. Greenwood, and I. Matthews, "Speech-driven conversational agents using conditional flow-vaes," in *Proceedings of the 18th ACM SIGGRAPH European Conference on Visual Media Production*, ser. CVMP '21, London, United Kingdom: Association for Computing Machinery, 2021, ISBN: 9781450390941. DOI: 10.1145/3485441.3485647.