Nicola C Anderson, PhD

Researcher | Data Scientist

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PhD Experimental Psychology (VU Amsterdam); MA/BSc (University of British Columbia)

SUMMARY

I am a data scientist and researcher with 15+ years of experience in designing studies and collecting grounded and human-centered data using a range of techniques from surveys and interviews to eye and body tracking in VR. I am passionate about beautiful data, emerging technology, and crafting stories that distil complex methods into sensible intelligence and workable solutions for stakeholders.

You can otherwise find me knitting, and hanging out with my giant Newfoundland dog.

SKILLS

- Understanding and communicating data insights (statistics, machine learning) and analyses (non-linear dynamics, modeling), as well as data presentation (ggplot, matplotlib), benchmarking, and reporting
- Designing, deploying, analyzing, and disseminating quantitative (A/B tests, hypothesis testing, surveys, webpage analytics) and qualitative (interviews, usability, reviews) studies from scratch
- Coding (R, Matlab, Python, git, shell scripting), including VR development (Unity, C#)
- Collaborating with researchers, designers, project managers, industry partners, and academics to understand research needs, conduct and analyze studies, prepare impactful reports, and socialize findings
- Engaging and convincing public speaking and storytelling to both academic and non-academic audiences (6 invited talks and workshops so far); producing interesting and meaningful reports from complex data
- Field expert on eye tracking and eye movement analysis

EXPERIENCE

Data Scientist – Cognitive3D   06/22–present

- Conceptualization, validation, and implementation of 3D metrics for understanding human behavior in VR/AR applications
- Built, refined, and evaluated machine learning models for predicting real-time behaviour based on 3D telemetry and other metrics

Senior Research Scientist – University of British Columbia   01/20–05/22

- Lead a team of 15+ researchers and developers
- Gave talks and workshops and provided training on programming, data analysis, research, and experimental methods; mentored graduate and undergraduate students
- Consulted with various stakeholders (industry partners, designers, project managers) on study design, usability, and applying scientific and data analytic approaches to problems

Postdoctoral Researcher – University of British Columbia   11/16–01/20

- Developed and implemented a novel VR eye and head tracking research program from scratch – and [wrote the book on it](#)
- Consulted with industry partners on UX evaluation techniques for XR experiences:
  - an in-classroom hololens helicopter rotor implementation for BCIT aerospace
  - best practices for attention evaluation in emerging technologies for Spatial Research & Design

Researcher – Vrije Universiteit Amsterdam   11/12–11/16

- Set up, deployed, analyzed, and presented research on why people look where they do in scenes
- Created and disseminated [a novel data analysis method](#) that is now considered industry standard
- Collected data from 500+ human participants using both quantitative and qualitative methods