

# Adnan M. Niazi

*PhD Research Fellow*

Computational Biology Unit, University of Bergen, Norway

🏠 [www.adnaniazi.com](http://www.adnaniazi.com) | ✉ [adnaniaz@gmail.com](mailto:adnaniaz@gmail.com) | 🌐 [adnaniazi](https://www.linkedin.com/in/adnaniazi) | 🐦 [adnaniazi](https://twitter.com/adnaniazi)

## Research Interests

RNA modifications, Nanopore sequencing, Bioinformatics software development

## Current Position

03/2018–present **Valen Lab, Computational Biology Unit, University of Bergen, Norway**  
PhD Research Fellow

## Employment

04/2014–present **Institute of Integrative Biosciences, CECOS University, Pakistan**  
Lecturer

09/2012–03/2013 **Centre for Artificial Intelligence, Radboud University, The Netherlands**  
Research Assistant

08/2011–08/2012 **Donders Institute for Brain, Cognition and Behaviour, The Netherlands**  
Software Engineer Trainee

04/2010–07/2010 **N-W.F.P. University of Engineering and Technology, Pakistan**  
Lecturer

11/2009–03/2010 **Advanced Engineering and Research Organization Pakistan**  
Assistant Manager

11/2008–11/2009 **Department of Electrical Engineering, CECOS University, Pakistan**  
Laboratory Engineer

## Publications

2019 Krause, M., **Niazi, A.M.**, Labun, K., Müller F.S., Cleuren Y. N. T., Valen E. (2019) tailfindr: Alignment-free poly(A) length measurement for Oxford Nanopore RNA and DNA sequencing. RNA.  
doi: <https://doi.org/10.1261/rna.071332.119>

2014 **Niazi, A.M.**, van den Broek, P.L.C., Klanke, S., Barth, M., Poel, M., Desain, P., & van Gerven, M.A.J. (2014) Online decoding of object-based visual attention using real-time fMRI. European Journal of Neuroscience, 39, 319-329.  
PMID: 24438492  
doi: [10.1111/ejn.12405](https://doi.org/10.1111/ejn.12405)

## Education

2010–2012 **University of Twente, The Netherlands**  
MSc Human Media Interaction (*Cum Laude*)  
Thesis | Real-time fMRI Decoding: Reading Minds Using Brain Imaging  
Advisors | Dr. Marcel van Gerven and Dr. Mannes Poel

2004–2008 **N-W.F.P. University of Engineering and Technology, Pakistan**  
BSc Electrical Engineering (*Cum Laude*)  
Thesis | Design of EEG Data Acquisition System for Brain-Computer Interfacing

## Tools Developed

tailfindr	2019	<b>Poly(A) tail length estimator for Oxford Nanopore RNA and DNA reads</b> tailfindr is an R package to profile poly(A) tail lengths in Oxford Nanopore's RNA and cDNA sequencing data <a href="https://github.com/adnaniazi/tailfindr">🔗 https://github.com/adnaniazi/tailfindr</a>
Analyze4D	2012	<b>fMRI Visualization and Voxel Time-course Analysis Tool</b> This MATLAB®-based tool can be used to intuitively visualize and do region-of-interest and voxel time-course analysis of fMRI and real-time fMRI data. <a href="http://www.analyze4d.com">🔗 www.analyze4d.com</a>
Donders Real-time fMRI	2011	<b>A General Purpose Pipeline for Brain Decoding and Neurofeedback Studies</b> Together with colleagues at Donders, I developed the real-time functional magnetic resonance imaging pipeline to retrieve, preprocess, and decode fMRI brain scans in real time for neurofeedback studies. <a href="http://tiny.cc/rtfmri">🔗 http://tiny.cc/rtfmri</a>

## Skills

**Programming** — Python, R, MATLAB, C++, LabVIEW, Verilog HDL  
**Scripting** — Bash  
**Pipelining** — Nextflow  
**Code Development Tools** — Git, Travis CI  
**Web Development** — HTML, CSS, Sass, Neat, Bootstrap, JavaScript, jQuery  
**Digital Typesetting** — LaTeX, LyX, Markdown  
**Miscellaneous** — PyQt GUI Design, Shiny App Design, R and Python package development

## Awards and Honors

2018	<b>Best Oral Presentation Award</b> Bioinformatics in Bergen Conference, Solstrand, Norway
2016	<b>Bronze Medal in iGEM 2016 Competition</b> Team iGEM Peshawar 2016 — the first ever iGEM Team from Pakistan
2016	<b>Best Teacher Award</b> CECOS University of IT and Emerging Sciences, Pakistan
2012	<b>Graduated <i>Cum Laude</i> with MSc in Human Media Interaction</b> University of Twente, The Netherlands
2012	<b>Nominated for Best Master's Thesis Award</b> ENIAC, University of Twente, The Netherlands
2011	<b>Best Poster Award</b> 4th BrainGain Conference, Maastricht, The Netherlands
2010	<b>UTS Scholarship for Postgraduate Studies</b> University of Twente, The Netherlands
2004	<b>Scholarship for Undergraduate Studies</b> N-W.F.P. University of Engineering and Technology, Pakistan

## Professional Trainings

- 05/03/19–15/04/19 **Collaborative Scientific Software Development Workshop**  
University of Bergen
- 10/08/18–14/08/18 **Robust and Reproducible Practices in Bioinformatics Programming**  
University of Oslo

## Poster Presentations

- 2019 **tailfindr: Alignment-free poly(A) length measurement for Oxford Nanopore RNA and DNA sequencing** [pdf]  
ISMB/ECCB 2019, Basel, Switzerland
- 2013 **Donders real-time fMRI: A MATLAB-based solution for real-time fMRI decoding and neurofeedback studies** [pdf]  
5th BrainGain Consortium Conference, Nijmegen, The Netherlands, 19 March, 2013.  
**Analyze4D: A tool for fMRI visualization and voxel time-course analysis** [pdf]  
5th BrainGain Consortium Conference, Nijmegen, The Netherlands, 19 March, 2013.  
**What are you looking at? Online decoding of object-based visual attention using real-time fMRI** [pdf]  
5th BrainGain Consortium Conference, Nijmegen, The Netherlands, 19 March, 2013.
- 2011 **Mind Reading: Decoding human visual perception and imagination** [pdf]  
4th BrainGain Consortium Conference, Maastricht, The Netherlands, 20 December, 2011.  
🌟 Winner of the Best Poster Award

## Media

- 2013 **Real-time fMRI Decoding: Reading minds using brain imaging** [pdf]  
IO Vivat 27.2

## Teaching

Graduate

**Introduction to Machine Learning** — Fall 2018  
**Python Programming and GUI Design** — Spring 2017; Spring 2016  
**Statistics with R** — Fall 2016  
[🔗 adnaniazzi.com/my-courses](https://adnaniazzi.com/my-courses)

Undergraduate

**Introduction to Programming** — Spring 2019  
**Introduction to Programming in Python** — Spring 2017; Spring 2016; Spring 2015  
**Statistics with R** — Spring 2017; Spring 2016  
**Introduction to Computer Science** — Fall 2016; Fall 2015; Fall 2014  
**Electrical Network Analysis** — Fall 2016; Fall 2015; Fall 2014  
**Measurements and Instrumentation** — Spring 2017; Spring 2016; Spring 2015  
**Introduction to Semiconductor Devices** — Spring 2014  
**Digital Signal Processing with LabVIEW** — Spring 2009  
**Communication Systems** — Fall 2010

## Workshops Conducted

- Apr 04, 2017 **Python Programming for Life Scientists**  
Shaheed Benazir Bhutto Women University, Peshawar, Pakistan
- Dec 31, 2016 **Python Programming for Life Scientists**  
ISCB Regional Student Group Pakistan, CECOS University, Pakistan
- Apr 30, 2016 **Python Programming for Everybody**  
NXTGEN 2016 Workshop Series, Basecamp Peshawar 2.0, Pakistan
- Mar 12, 2016 **Python Programming for Biologists**  
Decoders, Institute of Integrative Biosciences, CECOS University, Pakistan

## References

### **Eivind Valen, PhD**

Associate Professor and PI  
Computational Biology Unit  
University of Bergen, Norway.

☎ +47 (0)555 84 074

✉ eivind.valen@uib.no

### **Marcel van Gerven, PhD**

Associate Professor and PI  
Computational Cognitive Neuroscience Lab  
Donders Institute for Brain, Cognition and Behaviour  
Radboud University Nijmegen, The Netherlands.

☎ +31 (0)24 36 55931

✉ m.vangerven@donders.ru.nl

### **Mannes Poel, PhD**

Assistant Professor  
Department of Computer Science  
Human Media Interaction Group  
University of Twente, The Netherlands.

☎ +31 (0)53 48 93920

✉ m.poel@utwente.nl

## Links

🏠 [www.adnaniazi.com](http://www.adnaniazi.com)

✉ [adnaniazi@gmail.com](mailto:adnaniazi@gmail.com)

📞 0000-0001-6955-2506

🌐 [adnaniazi](#)

🐦 [adnaniazi](#)

📄 [scholar](#)

🌐 [figshare](#)

📄 [ResearchGate](#)

📄 [impactstory](#)