

Nicolas R. Smoll

MEDICAL DOCTOR · CLINICAL EPIDEMIOLOGIST · DATA SCIENTIST

17 Shannon Crescent, Watsonia, Victoria, Australia

☎ (+61) 4 00 11 88 07 | ✉ nrsmoll@gmail.com | 🏠 nrsmoll.pythonanywhere.com | 📷 nrsmoll | 🌐 nrsmoll

"In God we trust, for everyone else, bring data."

Summary

I am a medical doctor, completing a PhD in epidemiology and biostatistics with 7 years of clinical experience and 10 years of research experience, including supervising and leading research groups. I have experience in a wide range of clinical environments, and have managed small emergency departments as the senior medical officer.

I speak english and french fluently, am a citizen of the USA and Belgium (EU), and am a permanent resident of Australia. My areas of interest includes traditional predictive analytics, clinical trials design, machine learning and artificial intelligence in medicine.

Work Experience

Peter MacCallum Cancer Center

PAIN FELLOW

- Led a inpatient care team comprised of nurses and junior doctors
- Created and guided research projects
- Saw patients in an outpatient setting

Melbourne, Australia

August 2018 - PRESENT

General Practitioner /ED Career Medical Officer

COUNTRY GENERAL PRACTICE + ED LOCUM ROLES

- Lead (sole) Doctor in a Rural Emergency Department responsible for a 30 bed hospital
- Managed patients as an independant practitioner

Foster, Vic & Moruya/Bega NSW

February 2016 - Apr. 2016

John Hunter Hospital& Peninsula Health

MEDICAL REGISTRAR

- Learnt to manage patients as a senior doctor.
- Managed and Led Emergency Response Teams in a Tertiary Level Hospital
- Taught and supervised junior staff members

Newcastle, NSW & Frankston, VIC

Jan. 2013 - Feb. 2016

Peninsula Health

INTERNSHIP

- First year of clinical medicine experience as a junior doctor in Australia

Frankston, Australia

February 2012 - 2013

Geneva University Hospital

NEUROSURGERY REGISTRAR

- First Year Neurosurgery Trainee
- Worked using French as primary medical language
- Identified and managed neurosurgical emergencies

Geneva, Switzerland

January 2011 - January 2012

Presentations

Australasian Epidemiology Association Annual Scientific Meeting

NATIONAL CONGRESS, METHODS SECTION

- Brain cancers after CT scans: Using the 95th percentile of the pre-diagnostic symptomatic interval (PSI) to inform the choice of exclusion periods

Freemantle, Perth

September 2018

Peter MacCallum Surgery and Anesthetic Research Day

INTERDEPARTMENTAL PRESENTATION

- Effect of CT scan Radiation on the Incidence of Brain Cancers
- Effect of Day 1 Pain scores on length of stay

Melbourne, Victoria

December 2018

Education

University of Melbourne, School of Population and Global Health

PHD IN STATISTICS AND EPIDEMIOLOGY

- Effect of CT scan Radiation on the Incidence of Brain Cancer

Melbourne, Australia

March 2014 - Exp. March. 2020

Monash University

BACHELOR OF MEDICINE /BACHELOR OF SURGERY

- Completed medical school with 2 sole authored publications

Melbourne, Australia

February 2007 - December 2011

Royal Melbourne Institute of Technology

MASTER OF SCIENCE

- Thesis: Outcomes Measurement in Tension-type and Cervicogenic Headache

Melbourne, Australia

February 2006 - December 2007

Royal Melbourne Institute of Technology

BACHELOR OF APPLIED SCIENCE

- Paid tutoring in anatomy and neuroanatomy

Melbourne, Australia

February 2002 - December 2005

Software Competency

Statistical Software Suites

OVER 1000 LINES OF CODE - SEE MY GITHUB FOR CODE EXAMPLES

- Stata - 10 years experience, over 100 complete statistical analyses performed
- R - use on big data situations
- Python - Machine learning and AI libraries such as Scikit-Learn / TensorFlow / Keras

Software Systems

SEE MY GITHUB FOR CODE EXAMPLES

- \LaTeX - Professional document typesetting system for documents/reports, presentations and graphic design.
- Python - Website design. Used for building machine learning driven web apps for clinical usage.
- HTML - Website front-end design
- SQL - Competent in querying and managing SQL driven databases. Office Apps - competent in microsoft, google, and other open office software suites

Research

Selected Publications

TOTAL OF 70+ PUBLICATIONS, H-INDEX 18, I-INDEX 36

- **Smoll NR.** Relative survival of childhood and adult medulloblastomas and primitive neuroectodermal tumors (PNETs). Cancer. 2012;118(5):1313-1322
- Sarrafzadeh A, **Smoll NR.**, Schaller K. Guided (VENTRI-GUIDE) versus freehand ventriculostomy: study protocol for a randomized controlled trial. Trials. 2014;15(1):478.
- Stienen MN, **Smoll NR.**, Joswig H, et al. Validation of the baseline severity stratification of objective functional impairment in lumbar degenerative disc disease. J Neurosurg Spine. 2017;26(5)
- Gautschi OP, Stienen MN, Corniola M V., **Smoll NR.** et al. Assessment of the Minimum Clinically Important Difference in the Timed Up and Go Test After Surgery for Lumbar Degenerative Disc Disease. Neurosurgery. June 2016:1
- **Smoll NR.** Variations of the piriformis and sciatic nerve with clinical consequence: A review. Clin Anat New York NY. 2010;23(1):8-17. doi:10.1002/ca.20893.