# Tomas Beuzen

● *1404-1001 Richards St, Vancouver, BC, Canada, V6B1J6*

▌ *+1 (604) 789 4458*   ✉ *tomas.beuzen@stat.ubc.ca*

⌂ https://tomasbeuzen.github.io/   ⓖ TomasBeuzen   in Tomas Beuzen   🐦 TBeuzen

## Personal Summary

I'm currently a postdoctoral teaching and learning fellow with the Master of Data Science program at the University of British Columbia, Vancouver, Canada. I have experience in research, teaching, and engineering consulting. While I have demonstrated proficiency in doctorate level coastal engineering research and consulting, my primary interest now lies with the fields of data science and machine learning. In particular, I'm interested in the practical application of these fields to solving real-world engineering problems.

## Education

**PhD in Civil Engineering**                                      2016 - 2019
*University of New South Wales*

**BEng in Civil Engineering**                                     2011 - 2016
*University of New South Wales*

**BSc in Climate Dynamics**                                       2011 - 2016
*University of New South Wales*

## Skill Highlights

**Experience**
- 🔬 Research
- 🏫 Education
- 🗄 Data science
- 👷 Engineering consulting

**Programming**
- 𝐀 Latex
- 🖥 Matlab
- Ⓡ R programming
- 🐍 Python programming

**Other Skills**
- 🌐 GIS
- ⊞ Microsoft Office
- 🔍 Strong publication record

## Experience

**Postdoctoral Teaching and Learning Fellow**          August 2019 - Present
*University of British Columbia*

Part of the UBC Master of Data Science (MDS) program. Main roles include assessing MDS admissions, updating and expanding the MDS curriculum, managing teaching assistants, instructing lecture and lab components of the course, planning capstone projects, mentoring students in their capstone projects and collaborating with industry partners, and liasing with other UBC units engaged in Data Science teaching and learning initiatives.

**Graduate Engineer**                                    June 2018 - June 2019
*Royal HaskoningDHV*

Worked as a coastal engineer on local and international projects. Tasks included wave and water level modelling, sediment transport modelling, liaising with clients and project managers, report writing and field investigations.

**Teaching Assistant**                                   June 2013 - April 2019
*University of New South Wales*

Teaching assistant for over 15 different civil and environmental engineering courses at the University of New South Wales. Involves preparing and delivering material to classes, ranging from 20 to 50 students and lasting 1 to 4 hours. Courses included water engineering, geotechnical engineering, structural engineering, project management, mathematics and statistics for engineers, and final year theses.

**Consultant**                                       December 2012 - March 2013
*EMGA Mitchell McLennan Planning and Environmental Consultancy*

Assisted all aspects of the consulting process in fields of geotechnical, transport, environmental, acoustic engineering and project management. Duties included site visits, writing Environmental Assessments, budgeting and tenders. Primarily worked on successful tenders for the Sydney North West Rail Project.

## Key Publications

**Ensemble models from machine learning: an example of wave runup and coastal dune erosion**
*Natural Hazards and Earth Systems Science, September 2019*

**A variable selection package driving Netica with Python**
*Environmental Modelling and Software, January 2019*

**A comparison of methods for discretizing continuous variables in Bayesian Networks**
*Environmental Modelling and Software, July 2018*

**Bayesian Networks in coastal engineering: Distinguishing predictive and descriptive applications**
*Environmental Modelling and Software, January 2018*

**Physical model study of beach profile evolution by sea level rise in the presence of seawalls**
*Journal of Coastal Engineering, December 2017*

## References

**Tiffany Timbers - University of British Columbia**
*Tiffany.Timbers@stat.ubc.ca*

**Ian Turner - University of New South Wales**
*Ian.Turner@unsw.edu.au*

**Martin Budd - Royal HaskoningDHV**
*Martin.Budd@rhdhv.com*