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## Education

- 2017–2018 **Coursework in Computer Science**, *University of New South Wales*
- Engineering Project Management, Principles of Programming (Python), Database Systems, Data Structures and Algorithms (C), Foundations of Computer Science, Machine Learning and Data Mining.
- 2012–2015 **PhD in Mathematical Statistics**, *University of Technology Sydney*
- Thesis: Menictas, M. (2015) *Variational Inference for Heteroscedastic and Longitudinal Regression Models*. Doctor of Philosophy thesis. University of Technology Sydney, Australia.
  - Faculty advisor: [Prof. Matt Wand](#).
- 2008–2011 **B.Sc. in Mathematical Statistics**, *University of Technology Sydney*, First Class Honours
- Thesis: Menictas, M. (2011) *Eliciting sensitive information by randomized response*. Honours thesis. University of Technology Sydney, Australia.
  - Faculty advisors: [Prof. Deborah Street](#) and Dr. Narelle Smith.

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## Employment History

- Aug. 2023–present **Staff Data Scientist**, *Grubhub*, Boston, MA, U.S.A
- Leading Experimentation in Delivery Fulfillment at Grubhub. Contributing to building and deploying algorithms that intelligently automate a diverse array of services and operations that make Grubhub food delivery possible with an in-depth focus in causal inference, both batch and online.
- Mar. 2021–Aug. 2023 **Senior Data Scientist**, *Grubhub*, Boston, MA, U.S.A
- Jan. 2019–Mar. 2021 **Postdoctoral Researcher**, *Harvard University*, Cambridge, MA, U.S.A
- Reinforcement learning and sequential decision making in mobile health.
  - Faculty advisor: [Prof. Susan Murphy](#).
- Mar. 2018–Dec. 2018 **Postdoctoral Researcher**, *University of Technology Sydney*, Australia
- Development of fast inference schemes for fitting of Bayesian hierarchical semi-parametric models.
  - Faculty advisor: [Prof. Matt Wand](#).
- Jan. 2017–Feb. 2018 **Data Scientist**, *Atlassian*, Sydney, Australia
- Built classifiers to predict whether users will convert to product purchase.
  - Contribution to an automated experiment platform within the product growth team to automate the process of AB testing for online experiments. Languages used: R, Python, SQL, Java.
  - Comparison between frequentist AB testing methodologies to a Bayesian alternative.

Cambridge – MA, United States

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- Nov. 2015–Dec. 2016 **Data Scientist**, *Custora*, New York City, U.S.A
- Contributed to a predictive marketing platform built for e-commerce teams. Data analysis for retailers, e.g., segmentation and revenue prediction, in order to assist retailers in acquiring valuable customers and improve customer retention.
  - Replaced computationally inefficient MCMC algorithms with variational Bayesian alternatives. These models were used to predict the conversion rate and revenue of customers that were subject to a given marketing campaign.
  - Built pipeline to predict the price sensitivity of customers to personalize marketing campaigns. Estimation and predictive statistics were created in R and Ruby was used within the ruby on rails framework.
- Jun. 2015–Aug. 2015 **Fellow**, *Insight Data Science*, New York City, U.S.A
- Built an interactive web-app used to predict the number of job applications made by students who sign up to Campus Job.
  - Data were stored in PostgreSQL, cleaned, prepared and visualised using Pandas in Python.
  - A multi-class Random classifier in Scikit-Learn was used to predict the number of applications submitted by students.
  - An interactive front end was developed using Flask, Bootstrap, jQuery and deployed on AWS.
- Feb. 2011–Nov. 2015 **Teaching Assistant**, *University of Technology Sydney*
- Teaching assistant for *Introduction to statistics* - 1st year undergraduate subject.
  - Teaching assistant for *Regression analysis* - 2nd year undergraduate subject.
  - Instructor for *Introduction to data analysis with R* - seasonal short course for PhD students.
  - Workshop presenter for *Mathemagics* - a workshop for high school students.

## Skills Overview

- Programming PYTHON, R, RUBY, C, SQL (most flavours, mainly PostgreSQL with PL\pgSQL).
- Statistics Bayesian Statistics and Statistical Machine Learning.
- Other Strong focus on model development and model validation cycle, ability to conduct research in novel areas, refined communication and presentation skills, detail oriented and results driven.

## Awards

- 2015 **Insight data science scholarship**, funded by Insight Data Science
- 2014 **Excellence in postgraduate research**, awarded by the Statistical Society of Australia
- 2014 **EJG Pitman prize award for outstanding presentation**, awarded by the statistical Society of Australia
- 2014 **Higher degree research student conference fund**, funded by the University of Technology Sydney
- 2014 **Australian postgraduate award**, funded by the Australian Federal Government
- 2014 **Deans merit award for academic excellence**, awarded by the University of Technology Sydney

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## Publications

- Menictas, M., Oates, C.J. and Wand, M.P. [Online Semiparametric Regression via Sequential Monte Carlo](#). Australian and New Zealand Journal of Statistics, full publication details pending.
- Menictas, M., Di Credico, G. and Wand, M.P., 2023. [Streamlined variational inference for linear mixed models with crossed random effects](#). Journal of Computational and Graphical Statistics, 32(1), pp.99-115.
- Battalio, S.L., Conroy, D.E., Dempsey, W., Liao, P., Menictas, M., Murphy, S., Nahum-Shani, I., Qian, T., Kumar, S. and Spring, B., 2021. [Sense2Stop: a micro-randomized trial using wearable sensors to optimize a just-in-time-adaptive stress management intervention for smoking relapse prevention](#). Contemporary Clinical Trials, 109, p.106534.
- Menictas, M., Nolan, T.H., Simpson, D.G. and Wand, M.P., 2021. [Streamlined variational inference for higher level group-specific curve models](#). Statistical Modelling, 21(6), pp.479-519.
- Nolan, T.H., Menictas, M. and Wand, M.P., 2020. [Streamlined variational inference with higher level random effects](#). Journal of Machine Learning Research, 21(157), pp.1-62.
- Carpenter, S.M., Menictas, M., Nahum-Shani, I., Wetter, D.W. and Murphy, S.A., 2020. [Developments in mobile health just-in-time adaptive interventions for addiction science](#). Current addiction reports, 7, pp.280-290.
- Menictas, M., Tomkins, S. and Murphy, S.A., 2020. [Streamlined Empirical Bayes Fitting of Linear Mixed Models in Mobile Health](#). arXiv preprint arXiv:2003.12881.
- Menictas, M., Rabbi, M., Klasnja, P. and Murphy, S., 2019. [Artificial intelligence decision-making in mobile health](#). The biochemist, 41(5), pp.20-24.
- Menictas, M., 2015. [Variational inference for heteroscedastic and longitudinal regression models](#). (Doctoral dissertation).
- Menictas, M. and Wand, M.P., 2015. [Variational inference for heteroscedastic semiparametric regression](#). Australian & New Zealand Journal of Statistics, 57(1), pp.119-138.
- Menictas, M. and Wand, M.P., 2013. [Variational inference for marginal longitudinal semiparametric regression](#). Stat, 2(1), pp.61-71.
- Groen, L., Joseph, A., Black, E., Menictas, M., Tam, W. and Gabor, M., 2010. [Optimal location of Tsunami warning buoys and sea level monitoring stations in the Mediterranean Sea](#). Science of Tsunami Hazards.

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