### PADHRAIC SMYTH

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#### **Professional Positions**

April 1996-present: Professor, Department of Computer Science, University of California, Irvine

• Chancellor's Professor: 2018 to present

• Full Professor: July 2003 to 2018

Associate Professor: July 1998 to June 2003
Assistant Professor: April 1996 to June 1998

October 1988–March 1996: Member of Technical Staff and Technical Group Leader (from 1992), Jet Propulsion Laboratory, California Institute of Technology, Pasadena.

#### Education

PhD, 1988: California Institute of Technology, Department of Electrical Engineering.

MSEE, 1985: California Institute of Technology, Department of Electrical Engineering.

**BE, 1984:** National University of Ireland, University College Galway. Bachelor of Engineering (Electronic) with First-Class Honors.

#### Additional Professional Roles and Affiliations

Joint Faculty Appointments:

- Department of Statistics, UC Irvine, July 2008–present.
- Department of Education, UC Irvine, July 2017–present.
- Department of Biomedical Engineering, UC Irvine, July 2001–2012.

Founding Director, UCI Data Science Initiative, University of California, Irvine, July 2014–June 2018.

Founding Director, Center for Machine Learning and Intelligent Systems, University of California, Irvine, January 2007–June 2014.

Faculty Member, Institute for Genomics and Bioinformatics (IGB), UC Irvine, Member 2001-present.

Faculty Member, Institute for Mathematical Behavioral Sciences (IMBS), UC Irvine, 1999-present.

Faculty Member, Center for Digital Transformation, UC Irvine, 2012–present.

Faculty Member, Program for Mathematical, Computational, and Systems Biology (MCB), UC Irvine, 2007–present.

Faculty Member, Center for Research on Information Technology and Organizations (CRITO), UC Irvine, 2008–2012



Founding Director and Executive Committee Member of the ACM Special Interest Group on Knowledge Discovery and Data Mining (SIGKDD), 1998.

Visiting Principal Researcher, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, 1996–2001.

Member of IEEE (1988–present), American Statistical Association (1997–present), and the Association for Computing Machinery (ACM) (1999–present).

#### Honors and Awards

Fellow, Association for Computing Machinery (ACM), 2013

Fellow, Association for the Advancement of Artificial Intelligence (AAAI), 2010

ACM SIGKDD Innovation Award, 2009

Best paper awards: ACM SIGKDD Conference (best paper (1997, 2002), runner-up best paper (1998, 2000)), ACM/IEEE Joint Conference on Digital Libraries (JCDL) (shortlist for best paper, 2007), Educational Data Mining Conference (best paper, 2018)

Qualcomm Faculty Award, 2019

Google Faculty Research Awards, 2008 and 2014

IBM Faculty Partnership Award, 2001.

National Science Foundation CAREER award, 1997

ACM Teaching Award, UC Irvine, 1997

NASA Group Achievement award, Jet Propulsion Labaratory, 1997

Lew Allen Award for Excellence in Research, Jet Propulsion Laboratory, 1993

17 NASA Certificates for Technical Innovation (1991–1996)

#### Consulting and Business Activities

Consultant/Advisor to Toshiba (2018-present), First American (2018-present); ProLung, Inc (2017-present); Unified Patents (2016-present); University of Washington (2016-present); emnos Inc (2015-2016); Frost Data Capital (2014-2015); AS&T Inc (2013-2015); Samsung (2012-2015); SOCCCD (2012-present); DigitalRisk (2010-2012); CoreLogic (2011-2014); IdentityMetrics (2010-2012); Microsoft (2010-2011); ImageCat (2010); eBay (2009-2011); DataAnalytics LLC (2009-2011); Oracle (2008-2011); Netflix (2006-2009); Topicseek LLC (2005-2008); Yahoo! (2005-2008); Strativa (2005); IET (2004-2005); JWDirect (2001-2004); Credit Sciences (2000-2004); Nokia Research (2000); First Quadrant Financial Services (1998-1999); Smith-Kline Beecham (1998); AT&T (1996-1998).

#### **Professional Activities**

Journals: Associate/Action Editor

ACM Transactions on Knowledge Discovery and Data, guest editor of special issue on best papers from ACM SIGKDD 2011 Conference, TKDD 6(4), 2012.



IEEE Transactions on Knowledge and Data Engineering, 2002 to 2004.

Machine Learning Journal, July 1998 to December 2001.

Machine Learning Journal, guest editor of special issue on probabilistic learning, 1997.

#### Journals, Book Series, Centers: Editorial Board/Advisory Board Member

Journal of Machine Learning Research, 2000-present.

Journal of Data Mining and Knowledge Discovery, 1997-present.

Chapman and Hall: Series in Computer Science and Data Analysis, 2002-2008.

Bayesian Analysis, 2004-2007.

Insight Center for Data Analytics, University College Dublin, Scientific Advisory Member, 2015-present.

#### Journals: Reviewer

Reviewer for Science, Journal of Machine Learning Research, Communications of the ACM, Journal of the American Statistical Association, Bayesian Analysis, IEEE Transactions on Information Theory, IEEE Trans. on Neural Networks, IEEE Trans. on Signal Processing, IEEE Trans. on Circuits and Systems, IEEE Trans. on Pattern Analysis and Machine Intelligence, IEEE Trans. on Knowledge and Data Engineering, Statistics and Computing, Journal of Artificial Intelligence Research, Pattern Recognition Letters, Neural Networks, Machine Learning, ACM Transactions on Knowledge Discovery from Data.

#### Conference Program and General Chair Positions

Program Chair for the Uncertainty in Artificial Intelligence (UAI) Conference, 2013.

Program Chair for 17th ACM SIGKDD Conference, San Diego, 2011.

Program Chair for the Symposium on the Interface between Statistics and Computing, Costa Mesa, CA, June 2001.

General Chair for the Sixth International Conference on Artificial Intelligence and Statistics, January 1997.

#### Other Conference and Workshop Organization Roles

Conference Organization Roles: Area Chair, ICML 2018, 2019; Senior Area Chair, NeurIPS 2017, 2018, 2019; Panels Chair for ACM SIGKDD Fifth International Conference on Knowledge Discovery and Data Mining, 1999; Tutorials co-Chair for National Conference on Artificial Intelligence, 1998; Tutorials Chair for the ACM SIGKDD Conferences on Knowledge Discovery and Data Mining, 1997 and 1998; Publicity Chair for the ACM SIGKDD Conferences on Knowledge Discovery and Data Mining, 1995 and 1996.

Workshop Co-Chair/Organizer for: Dagstuhl Seminar, Automating Data Science, 2018; Workshop on Algorithmic and Statistical Approaches for Large Social Network Data Sets, NIPS Conference, Lake Tahoe, 2012; Workshop on User-Centered Modeling, Institute for Mathematics and its Applications (IMA), University of Minnesota, 2012.; Workshop on Scientific Data Mining, Institute for Pure and Applied Mathematics (IPAM), UCLA, 2002; Workshop on Temporal and Spatial Machine Learning, International Conference on Machine Learning (ICML), 2001; Massive Datasets workshop at the 1998 Neural Information Processing Conference (NIPS).



#### Conference Reviewing and Program Committees

Neural Information Processing Conference (NIPS), International Conference on Machine Learning (ICML), Uncertainty in Artificial Intelligence Conference (UAI), Artificial Intelligence and Statistics Conference (AI-Stats), European Conference on Machine Learning (ECML/PKDD), ACM Conference on Knowledge Discovery and Data Mining (SIGKDD), WWW Conference, International Conference on Pattern Recognition (ICPR), International Joint Conference on Artificial Intelligence (IJCAI), American Association for Artificial Intelligence Conference (AAAI), Pattern Recognition in Practice Workshops.

#### Postdoctoral Advisees

Michal Rosen-Zvi, 2003-2004; IBM Research, Israel.

Michael Duff, 2005-2006; Assistant Professor, Genetics/Developmental Biology, University of Connecticut.

Alex Ihler, 2005-2006; Associate Professor, Department of Computer Science, UC Irvine.

Romain Thibaux, 2008-2009; Google, Mountain View, CA

Ralf Krestel, 2011-2013; Senior Researcher, Hasso-Plattner Institute, Potsdam, Germany.

Tracy Holsclaw, 2011-2014; Consultant, San Jose, CA

#### **Graduate Students**

#### PhD Advisees and Current Positions

Dimitris Kotzias, PhD 2018; Google, Zurich

Eric Nalisnick, PhD 2018; Postdoc, Cambridge University

Moshe Lichman, PhD 2017; Google, Irvine, CA

Nick Navaroli, PhD 2014; Google, Irvine, CA

Jimmy Foulds, PhD 2014: Assistant Professor, Department of Computer Science, UMBC

Chris DuBois, PhD 2013: Apple, Seattle

America Chambers, PhD 2013: Assistant Professor, Department of Mathematics and Computer Science,

University of Puget Sound

Drew Frank (co-advised with Alex Ihler), PhD 2013: Apple, Seattle

Arthur Asuncion, PhD 2011: Google, Seattle, WA

Jon Hutchins (co-advised with Alex Ihler), PhD 2010: Google, Pittsburgh, PA

Chaitanya Chemudugunta, PhD 2009: Director, Data Science/Research, Pandora, CA

Seyoung Kim, PhD 2007: Assistant Professor, Department of Bioinformatics, CMU, Pittsburgh

Darya Chudova, PhD 2007: VP of Bioinformatics, Guardant Health, Redwood City, CA

Sergey Kirshner, PhD 2005: Facebook, Menlo Park, CA

Scott Gaffney, PhD 2004 Xianping Ge, PhD 2002 Igor V. Cadez, PhD 2002

Dimitry Pavlov, PhD 2001: VP, Walmart Labs, Sunnyvale, CA

#### Current PhD Students

Advanced to Candidacy: Chris Galbraith (2017), Jihyun Park (2017)

Pre-Candidacy: Disi Ji, Casey Graff, Robby Logan, Preston Putzel, Alex Boyd

#### PhD Thesis Committee Member

UC Irvine, Computer Science:

Doilor Van (2010) Dhua Namura (2010) Cam Hallman (2015) David Vastar (2015) Oian a Liu (2014)



(2012), Hamed Pirsiavash (2012), Behzad Sajadi (2012), David Orendorff (2012), Pinaki Sinha (2011), Chloe Azencott (2010), Vibhav Gogate (2009), Radu Marinescu (2008), Robert Mateescu (2007), Bozhena Bidyuk (2005), Stephen Bay (2001), Irina Rish (1999), Chris Merz (1998), Pedro Domingos (1997).

#### UC Irvine, Other Departments:

Garren Gaut (Cognitive Science, 2018), Majid Janzamin (EECS, 2016), Sepide Sarachi (Civil and Environmental Engineering, 2015), Justin Chung (Informatics, 2015), Colene Haffke (Earth Systems Science, 2015), Kevin Heins (Statistics, 2014), Michael Salmans (Biological Chemistry, 2014), (Emma Spiro (Sociology, 2013), Zack Almquist (Sociology, 2013), Kim Aeling (Microbiology and Molecular Genetics, 2007), Bethany Knapp (Cognitive Science, 2002).

#### Other Universities (External Committee Member or Examiner):

Ramnath Balasubramanyan (CMU, 2013), Mindaugus Norkus (National University of Ireland, Galway, 2013), Xuerei Wang (U Mass Amherst, 2009), Sangmin Oh (Georgia Tech, 2009), Carla Domencioni (UC Riverside, 2002), John Lindal (Caltech, 2000), Srinivas Aji (Caltech, 2000), David Babcock (Caltech, 2000), Gavin Horn (Caltech, 1999), Lonnie Chrisman (CMU, 1996), Michael Burl (Caltech, 1996), Barry Ambrose (Caltech, 1995), Zheng Zeng (Caltech, 1995).

#### PhD Candidacy/Thesis Proposal Committees

UC Irvine: Pouya Pezeshkpour, 2018 (EECS), Zhengli Zhao, 2018 (CS), Cory Scott, 2018 (CS), Ted Grover, 2018 (Informatics), Daniel Ruiz, 2018 (Earth System Science), Garren Gaut, 2017 (Cognitive Sciences), Alex Parret, 2017 (Economics), Phuc Nguyen, 2016 (CS), Nolan Phillips, 2016 (Sociology), Brian Vegatible, 2016 (Statistics), Igor Burago, 2016 (CS), Emmanouil Alimpertis, 2016 (EECS), Daniel Quang, 2015 (CS), Bailey Kong, 2015 (CS), Sholeh Fourazan, 2015 (CS), Coral Wheeler, 2014 (Physics), Raul Diaz, 2014 (CS), Golnaz Ghiasi, 2014 (CS), Wei Ping, 2014 (CS), Sam Hallman, 2013 (CS), Peter Sadowski, 2013 (CS), William Lam, 2013 (CS), Justin Chung, 2013 (Informatics), Kevin Heins, 2012 (Statistics), Zack Almquist, 2012 (Sociology), Ashley Payne, 2012 (Earth System Science), Ragupathyraj Valluvan, 2012 (EECS), Emma Spiro, 2012 (Sociology), Michael Salmans (Biological Chemistry), Colene Haffke, 2011 (Earth System Sciences), Tim Rubin, 2011 (Cognitive Sciences), Brendan Rogers, 2011 (Earth System Sciences), Hamed Pirsiavash, 2011 (CS), Behzad Sajadi, 2011 (CS), Qiang Liu, 2011 (CS), Anoop Korattikara, 2011 (CS), David Keator, 2010 (CS), Kenny Daily, 2010 (CS), Yutian Chen, 2009 (CS), Lars Otten, 2009 (CS), David Orendorff, 2009 (CS), Chloe Azencott, 2009 (CS), Chaitanya Desai, 2008 (CS), Pinaki Sinha, 2007 (CS), Guy Yosiphon, 2006 (ICS), Bo Gong, 2006 (ICS), Lin Wu, 2005 (ICS), Yiming Ma, 2004 (ICS), Dawit Seid, 2004 (ICS), John Abatzoglu, 2004 (Earth System Sciences), Suman Sundaresh, 2003 (ICS), Mingliang Li, 2002 (Economics), Ye Sun, 2001 (ICS), Bethany Knapp, 2000 (Cognitive Science), Stephen Bay, 1999 (ICS), Daniel Billsus, 1998 (ICS), Pei Suen, 1998 (ECE), Chris Merz, 1997 (ICS).

Other Universities: Ramnath Balasubramanyan, 2012 (CMU), Srinivas Aji, 1999 (Caltech), Gavin Horn, 1998 (Caltech), John Lindal, 1998 (Caltech).

#### **Masters Students Supervised**

UC Irvine, Information and Computer Science: Homer Strong (2016), Zach Butler (2016), Scott Crawford (2012), Corey Schaninger (2012), Scott Triglia (2011), Ajay Mishra (2008), Scott White (2006), Joshua O Madadhain (2006), Vasanth Kumar (2006), Sridevi Parise (2003), Naval Verma (2002), Wagner Truppel (2001), Scott Lundgren (1997).

Royal Institute of Technology: Stefan Edlund (1997), Department of Numerical Analysis and Computing Science, Stockholm: Thesis entitled *Methods for Cluster Analysis with Applications to Large NASA Data Sets*.

University of Freiburg: Daniel Henke (2007). Department of Computer Science. MS Diplom Thesis



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