

Dr. Josh Pohlkamp-Hartt

Pohlkamp.Hartt@gmail.com, (617) 794-0922
1482 Beacon St. #31
Brookline, MA, 02446, USA

Education

2011 - 2016	PhD in Statistics	Queen's University
2009 - 2010	MSc. in Statistics	Queen's University
2005 - 2009	BSc. in Mathematics	Queen's University

Work Experience

2019 - Present **Boston Bruins – Statistician**

As the statistician for the Bruins, I develop models, metrics and analysis to support decision-making within the hockey operations department. I am directly involved in decision-making, where I communicate our department's recommendations. Our data products support all areas of professional hockey: draft preparation, player development, signing/trades, in-game strategy, sports science and contract negotiations. I assist other departments gaining experience in scouting, scheduling, arbitration, off-ice training and coaching. In addition to team focused efforts, I develop processes and KPIs for improving our structure and decision-making within hockey operations. This includes creating and managing our Kanban, Jira, Confluence and Slack workflows, and instituting an Agile framework.

Highlighted skills: Professional sports operations, sports analysis, coding, web development, non-statistical communication, computer science, project management, agile frameworks

2015 - 2019 **Apple Inc. – Senior Statistician**

I led the analysis for projects that aimed to improve Apple's mapping services. My main responsibilities were to design and coordinate the implementation of quality evaluation systems for projects including the launch of indoor mapping and the globalization of Apple's transit routing feature. I led 20-50 member teams with varying expertise in this role and was directly responsible for decision recommendations to C-level executives.

Highlighted skills: Project planning, executive-level communication, team management, creating team culture, database manipulation, quality control, metric development, large-scale data analysis.

2014 - 2015 **Kingston Frontenacs Hockey – Head of Analytics**

I designed and implemented an analytics program including developing a computer system for data collection, hiring staff, creating a statistics package to evaluate the data, modeling player performance using advanced regression models, and reporting results clearly to coaches and management. As a contributing member of the academic hockey research community, I became well versed in the state-of-the-art methods used today including computer vision for data collection, player/prospect valuations and injury prevention.

Highlighted skills: Data reporting to management, coding, model development, hockey metrics/data collection, personnel management.

2012 - 2015 **Casual Contact – Owner**

Casual contact was an event promotions company focusing on dance music artists. As the owner, I hired and managed a sales staff of 10 people, met with venues and talent buyers to make decisions on marketing strategies and pricing profiles, facilitated ticket sales for events and maintained a lean, budget-oriented business model.

Highlighted skills: Budgeting, staffing, managing client relations, advertising (social media and physical), expense reporting, supply/demand analysis.

2011 - 2015 **Queen's University – Instructor/Researcher**

I taught a graduate level course on statistical quality management at Queen's University. In this role, I designed the course materials, taught lectures, worked with students and evaluated their work. This course focused on the statistical methods of improving quality. As a doctoral candidate I also held a variety of educational roles within the Mathematics and Statistics department. I worked as an evaluator, lab instructor, and assistant for courses on data analysis, algebra, regression, calculus, differential equations and experimental design.

Highlighted skills: Report writing, time series modelling, statistical learning methods, research methods, public speaking, visualization, effective communication, quality management tools, statistical inference.

Independent Research Experience

2015 - 2018	Hockey Analysis of NHL Play-by-play Data Scraped/parsed NHL play-by-play data for development of new methods/metrics for evaluating in-game events. This included research into a player's defensive impact and normalized-for-quality save/shooting percentages.
2014 - 2016	Hockey Analysis of the Kingston Frontenacs Data, Neutral Zone Success Metrics Created new metrics and methods for in-game player valuation, line selection, neutral zone play quality and predicting future in-game events.
2011 - 2015	PhD. Thesis, Machine Learning Techniques in Spectrum Estimation Development of methods to improve detection properties and predictability of Multitaper Spectrum Estimation using regularization and resampling. These methods were applied to commodities pricing, electrocardiogram data and hockey data.
2013	SSC Case Study Competition, Noise Pollution Modelling in the Toronto Area Participated in Statistical Society of Canada's annual case competition. Developed predictive modeling of noise pollution with regularization, GARCH and spectrum estimation.
2010 - 2011	Research project with SFU, Grizzly Bear Populations in South Eastern British Columbia Population modelling using spatial capture-recapture detection.
2009 - 2010	MSc. Thesis, Statistical Applications to Cognitive Radio Development of a detection algorithm for identifying low-powered terrestrial television signals.

Programming Skills

R	Package development, model building, machine learning, experimental design, web scraping
Python	Basing scripts/notebooks and function development
JAVA	Object oriented coding, JSON
SQL	Database manipulation

Seminars and Conferences

2021	Keynote Speaker, Hockey Hackathon Day
2021	Judge, Big Data Cup
2020	Judge, UConn Sports Analytics Conference
2016-2020	Member/ Judge, Joint Statistical Meetings (ASA/SSC)
2017 - 2018	Member, SIGKDD Conference on Knowledge Discovery and Data Mining
2016 - 2018	Member, Apple Machine Learning Summit
2017	Keynote Speaker, Queen's Economic Speaker Summit
2016	Invited Presenter, Ottawa Hockey Analytics Conference
2014 - 2016	Presenter, Joint Statistical Meetings (ASA/SSC)
2009 - 2015	Presenter, Queen's Graduate Mathematical Seminar
2012 - 2013	Chair, Queen's Statistical Learning Theory Seminar

References

Sports Industry	Campbell Weaver, Co-worker, Boston Bruins, cweaver@bostonbruins.com
Professional	Joe Nilson, Co-worker, Apple Inc., jnilson@apple.com
Professional	Justin Norton, Business Partner, Casual Contact, norton.justin.a@gmail.com
Academic	Dave Riegert, Researcher, Queen's University, driegert@gmail.com