Contact

www.linkedin.com/in/
jasonbrownlee (LinkedIn)

Top Skills

Data Science

Deep Learning

Machine Learning

Honors-Awards

Australian Computer Society Student
Award

Aspect Scholarship Prize

Australian Postgraduate Award
Scholarship

Complex Intelligent Systems
Laboratory Summer Scholarship

1st Prize, AI-Depot Artificial
Intelligence Writing Competition

Publications

Mobile Game Engines: Interviews
with Mobile Game Engine
Developers

Master Machine Learning Algorithms

Clever Algorithms: Nature-Inspired
Programming Recipes

Probability for Machine Learning

Better Deep Learning

Jason Brownlee

Making Developers Awesome at Machine Learning
Melbourne, Australia

Summary

Jason Brownlee, Ph.D. is a machine learning specialist who teaches
developers how to get results with modern machine learning and
deep learning methods via hands-on tutorials.

Experience

Machine Learning Mastery
Founding Researcher
November 2013 - Present (6 years 5 months)
Melbourne, Australia

Machine Learning Mastery is a community that offers 900+ tutorials and
18+ Ebooks to help developers get started and get good at applied machine
learning.

Machine learning is taught using a highly productive top-down and results-
focused approach that is counter to the math-heavy academic approach taken
by the rest of the industry.

Learn more: http://MachineLearningMastery.com

Selected Ebook Titles:
+ Generative Adversarial Networks with Python, 2019.
+ Deep Learning for Computer Vision, 2019.
+ Deep Learning for Time Series Forecasting, 2018.
+ Deep Learning For Natural Language Processing, 2017.
+ Long Short-Term Memory Networks With Python, 2017.
+ Deep Learning With Python, 2016.
+ XGBoost With Python, 2016.

And many more.

Bureau of Meteorology
Senior Software Engineer
March 2010 - May 2016 (6 years 3 months)

Development and support of tropical cyclone forecasting systems used by severe weather meteorologists in Australia and the South Pacific for analysis and warnings.

Senior member of the high impact weather systems development team and collaborated with meteorologists, policy and research scientists on projects. Specialty in modeling systems, ensembles, and interactive forecasting tools. Agile engineering practices such as test-driven development, pair programming, and continuous integration.

+ Responsible for ongoing development and maintenance of desktop software used by severe weather forecasters for forecasting tropical cyclones on Linux with Swing/Java/Oracle. Highlights include the addition of ensemble support and interactive intensity forecasting tool.
+ Responsible for internal tools such as email summaries of live products and a web-based system to present statistical summaries of cyclone data and model verification statistics.
+ Responsible for the operationalization, maintenance, and verification of server-side ensemble model to forecast the probability of wind above wind speed thresholds in FORTRAN/Java/BASH (DeMaria and Knaff 2009 model).
+ Responsible for the extension of the ensemble wind probability model for use in storm surge modeling involving multivariate statistical analysis and linear algebra in FORTRAN/LAPACK (Kepert 2014 model).
+ Responsible for support of software systems for tsunami analysis and warning in Australia and the Indian Ocean with Linux/IDL.
+ Responsible for supporting and maintaining the international standard for describing cyclone tracks in XML called Cyclone XML (CXML).
+ Responsible for supporting and visiting severe weather meteorologists at field locations in Australia and in the South Pacific.

Selected Publications:
+ Estimating TC Wind Probabilities in the Australian Region, 2013.

MobileGameEngines.com
Founding Writer
2012 - 2014 (2 years)

Design and development of a website, interviews, and series of books on game engines and game engine developers for mobile platforms including Apple and Android.

+ Responsible for development and support of the website on Heroku/Ruby-on-rails.
+ Responsible for interviewing mobile game developers and mobile game engine developers.
+ Responsible for editing and writing two books on the industry of mobile game development.

Selected Publications:
+ Mobile Game Engines: Interviews With Mobile Game Developers, 2012.
+ Mobile Game Engines: Interviews With Mobile Game Engine Developers, 2013.

Clever Computations
Founding Consultant
2010 - 2014 (4 years)
Melbourne, Australia

Consulting services involving the analysis of customer behavior and interventions for software-as-a-service (SaaS) businesses.

+ Responsible for data gathering, filtering and cleaning from client stakeholders.
+ Responsible for the application of statistical and machine learning modeling of client data.
+ Responsible for the interpretation and presentation of results and suggestion of interventions.
+ Wrote, released and marketed a book on stochastic optimization methods with code examples in the Ruby programming language. Code and book released under an open source license.

Selected Publications:
+ Clever Algorithms: Nature-Inspired Programming Recipes, 2011.

AOS Group
Research Engineer
January 2009 - February 2010 (1 year 2 months)
Melbourne, Australia

Research and development (R&D) into the use of multi-agent systems for applications in aviation and defense. Domestic and international clients such as the Australian Defence Science and Technology Organisation (DSTO) and Northrop Grumman Corporation.

+ Responsible for technical pre-sales meetings on the applicability of agent and multi-agent technologies with clients, on site.
+ Responsible for the development and presentation of multi-agent based solutions to complex defense problems.
+ Responsible for development of a clean-room implementation of a Belief-Desired-Intentions (BDI) agent architecture in ANSI C.

Mayhem Method
Cofounding Engineer
2008 - 2008 (less than a year)
Melbourne, Australia

Strategy and engineering for a range of small direct to consumer SaaS websites.

+ Responsible for the formation of the project team.
+ Responsible for development and maintenance of Web/Ruby-on-Rails software as a service (SaaS) applications.
+ Responsible for the content marketing of the business and applications.

Websites Included:
+ A Bit of Pluck (mobile meetup, from a startup camp 2008)
+ Spicy Elephant (flash cards)
+ Screen Sponge (movie tracking and lending)
+ Comment is King (online conversation consolidation)
+ Five Second Test (usability test, now owned by UsabilityHub)

The Portland House Group Pty. Ltd.
Research Engineer
2006 - 2006 (less than a year)
Melbourne, Australia

Development of systems with stochastic optimization algorithms (genetic algorithms) for the purposes of optimization stock portfolios.

+ Responsible for developing systems for data ingestion and retrieval.

Shine Technologies
Consultant
2000 - 2004 (4 years)
Melbourne, Australia

Enterprise software development for corporate clients, mostly in teams and on-site. Specialty in Linux, backend engineering and scalable server-side systems with multi-threading.

Adoption of early agile engineering practices such as pair-programming, extreme programming, test-driven development and more.

+ Responsible for developing and maintaining a webmail system on Linux/ PHP/MySQL/LDAP with IMAP/Horde to support multiple domains (Spotlight Online).
+ Responsible for documenting internal high-throughput multithreading library with Java/Multithreading.
+ Responsible for developing internal developer tools for database code generation with Java/Swing (Tru Energy/EnergyAustralia).
+ Responsible for prototyping machine learning-based anomaly detection for statement verification (Tru Energy/EnergyAustralia).
+ Responsible for and reports and tutorials on emerging Java technologies (e.g. Java Struts web framework).
+ Responsible for developing and maintaining a Payment Gateway on Tomcat/ JSP/Java/Struts (Loyalty Pacific/FlyBuys).
+ Responsible for developing a self-managed super fund web application Java/ JSP/Struts (Australian Clearing Services).
+ Responsible for developing a multi-threaded high-throughput query processor on Java, Java Messaging Service (JMS), Sun One App Server, and RMI interfacing Yellow Pages and White Pages data stores (Sensis/Telstra).

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Education

Swinburne University of Technology
Doctor of Philosophy - PhD, Artificial Intelligence · (2005 - 2008)

Swinburne University of Technology
Master's degree, Artificial Intelligence · (2003 - 2004)

Swinburne University of Technology
Bachelor's Degree, Applied Science (Computing) · (2002)

RMIT University

Course, Introduction to Psychology · (2003)

RMIT University

Advanced Diploma, Information Technology · (2000)