AKANKSHA SHRIVASTAVA

Data Scientist, Full Stack Developer

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EDUCATION

M.Sc. in Computer Science	**University of Oxford**	⚲ Oxford, UK	📅 Oct 2014 – Sep 2015

Awarded Distinction in thesis & 3 courses; was offered a D.Phil. position starting fall 2016

B.Arch. in Architecture	**Indian Institute of Technology**	⚲ Kharagpur, India	📅 July 2008 – Jun 2013

PUBLICATIONS

- Borgwardt, Stefan et al. (2016). "Preferential Query Answering over the Semantic Web with Possibilistic Networks". In: *Proceedings of the 25th International Joint Conference on Artificial Intelligence, IJCAI 2016, New York, NY, USA, July 9-15, 2016.* Ed. by Subbarao Kambhampati. IJCAI/AAAI Press, pp. 994–1000. URL: http://www.ijcai.org/Abstract/16/145.
- Shrivastava, Akanksha (2012). "Opinion Detection in English Sentences using Support Vector Machines". In: *First IFcoLog Workshop Series, Computability in Europe 2012, Cambridge, UK, June 18-23, 2012.*

EXPERIENCE

Founder & CTO	**Helpkey**	⚲ Bangalore, India	📅 Jan 2017 – May 2017

Automating customer support over email & live chat using NLP; achieved $25k in ARR | NLTK | Keras | Spacy | Docker |

- Finalist at Techstars & YCombinator (top 4% of 10k startups globally); architected & implemented the entire product stack
- Built a domain specific language & in-house NLP with neural networks & probabilistic parsing for intent/entity recognition

Tech Lead	**The Van and Man**	⚲ New Delhi, India	📅 Dec 2015 – Dec 2016

Online marketplace for home services in UK with $1M in GMV (seed funding of $1.5M) | NumPy | Pandas | NLTK | Docker |

- Led a team of 5 to architect product for automating transaction lifecycle spanning customers, vendors & internal ops
- Developed a human-assisted chatbot to automate customer acquisition; achieved 50+ NPS at 1500+ transactions/month
- Used multilogistic regression to develop a pricing engine trained on 2 mil datapoints; achieved 75% acceptance
- Constructed ETL & BI dashboards from 10 sources tracking 150+ variables & 20+ KPIs across marketing, ops & finance

Analytics Specialist	**Opera Solutions**	⚲ New Delhi, India	📅 July 2013 – July 2014

Developed machine learning models to solve business problems in healthcare sector | Python | SAS | SQL | R |

- Designed multilogistic regression models to predict patients' likelihood towards 7 diseases with an RoI of $5M
- Analyzed 50GB+ patient data, established business impact for 5 key client services & identified sources of revenue leakage
- Developed a probabilistic model to update disease classification codes, eliminating risk worth $16M for insurers
- Built a naive Bayes engine to forecast employee attrition by flagging negative feedback from employees with 60% accuracy

Summer Researcher	**Ecole Polytechnique**	⚲ Paris, France	📅 May 2011 – July 2011

Derived optimal mixed strategies for 2-player stud Poker using algorithmic game theory | C++ |

Summer Researcher	**Nanyang Technological University**	⚲ Singapore	📅 May 2010 – July 2010

Devised a data driven system supplementing text logins with graphical passwords | JavaScript | MATLAB |

KEY PROJECTS

MSc Thesis (Distinction)	**Prof. Thomas Lukasiewicz**	⚲ Oxford, UK	📅 May 2015 – Aug 2015

Using Possibilistic Networks for Preferential Query Answering in the Semantic Web

- Developed a theory that combines ontological knowledge with possibilistic network in order to: (i) represent qualitative preferences along with domain knowledge, and (ii) realise preferential query answering of conjunctive queries
- Proposed formalism is has a lower complexity and more intuitive expression than existing models

Research	**Independent**	⚲ Kharagpur, India	📅 Mar 2012 – May 2012

Opinion Detection in English Sentences using Support Vector Machines | Hadoop |

- Achieved 80% accuracy & 88% recall, 1 of 5 students invited worldwide to present at Computability in Europe 2012, UK