Karan Shastri

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lab www.itwil.ca

I enjoy the process of interface design, human factors, and cognitive engineering. Master's candidate at Waterloo, supervised by Dr. Jennifer Boger.

Education

Sep'17- Present
Master of Applied Science (Systems Design Engineering)
University of Waterloo, Canada

Aug'13- Jun'17
Bachelor of Technology (Computer Science & Engineering)
Alliance University, India
Degree with distinction

Research and Experience

May'18- Present
ITWIL Lab - Intelligent Technologies for Wellness and Independent Living Lab
MCI@Work
- Creating digital tools for people with early onset dementia.
- Multidisciplinary Thesis Project, supervised by Dr. Jennifer Boger, Assistant Professor, Department of Systems Design Engineering, University of Waterloo.

May'18- Present
Teaching Assistant
University of Waterloo
- Tutorial instructor and teaching assistant for MSCI 445 – Telecommunication Network Systems.
- Responsible for grading and delivering course tutorials to 65 fourth year undergraduate engineering students.

Jan'18- April'18
Human Cognition Analysis
- Analysis and qualitative evaluation of human search behaviour.
- Design of evaluation using Contextual Inquiry, Distributed Cognition and Cognitive Task Analysis.

Feb'17- Jun'17
Recommendation System
- Developed recommendation system for movies using Recurrent Neural Nets.
- Trained and tested model on 9,000 movies and tested against Ball-Tree algorithm for comparison.
- Achieved dynamic recommendation system with 90% accuracy, when analyzed on test data. Presented and accepted as final year Bachelors thesis.

Jun'16- Aug'16
Indian Institute of Science
Summer Research Intern
- Designed, developed and tested Machine Learning prediction model for semi-conducting materials with 85% accuracy.
- Documented proposal reports for machine learning research.

Skills

User Interface/User Experience
Learnt how to make software personalized and usable during my computer science degree, developed class quiz application and chat-bot.

Cognitive Science
Developed contextual inquiry, qualitative reasoning, and task analysis skills while working on human search behavior.

Mathematical Modeling
Developed models during research internship and final year thesis to describe system.

Quick Learner
Added responsibilities to document reports and proposals during research internship.

Quantitative Reasoning
Converted each project to quantifiable results. Interpreting real-world quantitative information with electricity market analysis.

Problem Solving
Appropriate algorithm selection for recommendation system. Created and tested problem sets for hackathon.

Technical Skills

R
SQL
Java
Contextual Design
HTML/CSS
JS

Relevant Coursework

Quantitative Data Analysis
Statistical Methods for Data Analysis
Cognitive Engineering
Human Factors Testing
Systems Design Life Cycle

Interests

Swimming
Reading
Video Games
Cologne bottle collector