

Nithesh B Javvaji

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Availability: January – August 2021

Education

Northeastern University, Boston, MA

Jan 2017 – July 2021

Ph.D., Interdisciplinary Engineering (Human-Machine Systems)

Courses: Machine Learning, Reinforcement Learning, Integer & Non-linear optimization, Statistics & Simulation Analysis

Northeastern University, Boston, MA

Aug 2015 - Apr 2017

M.S., Operations Research

Indian Institute of Technology (ISM), Dhanbad, India

Jul 2008 – May 2012

B.Tech., Mechanical Engineering

Technical Expertise

- Languages: Python, R, C#, PHP, Matlab, Git, LaTeX
- Databases: MySQL, MongoDB, Microsoft SQL Server
- Frameworks: Flask, Django, scikit-learn, Tensorflow, PyTorch
- Optimization: AMPL, Gurobi, CPLEX
- Visualization: Tableau, R (ggplot2, plotly), Python (matplotlib, altair), D3.js
- Tools: Unity, Arena, Vensim, JMP, Minitab, SPSS

Academic Experience

Graduate Research Assistant

Jan 2017 – present

Northeastern University, Boston MA

- Developing computational models of human perception, behavior and decision making in serious games to improve the structure of Human-Computer interaction.
- Working on model-based approaches to enhance human-machine collaboration in interactive systems using techniques from data mining, machine learning, optimization, bayesian and qualitative methods.

International Business & Strategy Research Assistant

Sep 2016 – Dec 2016

D'Amore-Mckim School of Business, Northeastern University, Boston MA

- Worked on modelling the relationship between Macroeconomic indicators, Healthcare process measures, structural measures and outcome measures using statistics and machine learning from a database of 225 countries provided by World Bank, World Health Organization.

Professional Experience

Aditya Birla Group (Mining & Mineral Resources Business), Mumbai, India

Jul 2012 - Jul 2015

Role: Operations Research Engineer

Hyundai Construction Equipment India Pvt Ltd, Hyderabad, India

May 2011 – Jun 2011

Role: Management Trainee

Academic Projects

- Understanding Compliance with AI Advice for the Design of Better Human-Machine Hybrids Sep 2020 – present
- Exploring Human-Centered Design for Human-Machine Collaboration in High-Stakes Decision Making Scenarios Sep 2018 – present
(Funded by: Office of Naval research)
- Modeling and Forecasting Temperature & Rainfall pattern in Chennai as a seasonal ARIMA process

Publications

- Understanding Player Patterns by Combining Knowledge-Based Data Abstraction with Interactive Visualization, role: author, CHI Play, 2020.
- Preliminary Development and Evaluation of the Mini Player Experience Inventory (mPXI), role: co-author, CHI Play, 2020.
- Gaming4All: Reflecting on Diversity, Equity, and Inclusion for Game-Based Engineering Education, role: co-author, FIE 2020.
- Player-AI Interaction: What Can Neural Network Games Tell Us About AI as Play? (in review), role: co-author, CHI 2021.
- Computational modeling of Situation Awareness in a Business Simulation Game (in progress), role: author