

SHREYAS FADNAVIS

1750 N Range Road, Fountain Park Apartments, G - 302

☎ (+1) 812-955-9322 | ✉ shfadh@iu.edu | 🏠 shreyasfadnavis.com | 📱 ShreyasFadnavis | 🌐 shreyasfadnavis

Education

Indiana University Bloomington

Bloomington, Indiana

M.S. IN DATA SCIENCE

Aug. 2017 - PRESENT

- Bayesian Theory and Data Analysis, Machine Learning, Deep Learning, Multivariate Data Analysis, Computer Vision, Analysis and Design of Algorithms
- Kelley School of Business (MBA courses): Consumer Insights, Venture Strategy

Pune Institute of Computer Technology

Pune, India

B.E. IN COMPUTER ENGINEERING

Jul. 2013 - Jul. 2017

- Relevant Coursework: Data Mining, Business Intelligence and Analytics, Artificial Intelligence, Database Systems

Experience

Google

Mountain View, California

PYTHON SOFTWARE FOUNDATION: SUMMER OF CODE CANDIDATE

April 2018 - PRESENT

- Model Fitting and model selection to explain the data and parameters for estimable Diffusion Tensor Imaging
- Mathematical Optimization techniques to Improve the Machine Learning Modules for Microstructure Crossings in the Brain
- Stochastic Search utilizing Genetic Algorithms (GA) for approximating exponential Time Series models

Indiana University: IGWS

Bloomington, Indiana

SOFTWARE DEVELOPER

May. 2018 - PRESENT

- Working on developing the Data Visualization framework using JavaScript: D3JS
- Developing the backend for streaming real-time data and analysis

Kelley School of Business

Bloomington, Indiana

GRADUATE ASSISTANT (UNDER PROF. TRENT WILLIAMS)

Dec. 2017 - April 2018

- Time Series Analysis of Swedish Economic and Financial Data
- Research on Venture Strategies, Organizational Innovation and Data-Driven Marketing

Indian Institute of Tropical Meteorology

Pune, India

RESEARCH ASSOCIATE

Jan. 2017 - Aug. 2017

- Performed Statistical Analysis and Feature Engineering of Large Gridded Data using R, Python and FORTRAN
- Developed a high accuracy cumulus parameterization module for Predictions and Re-Analysis of Geo-spatial Data

Juelich Supercomputing Center (Institute of Advanced Simulations)

Juelich, Germany

RESEARCH ASSOCIATE

Jul. 2016 - Oct. 2016

- Parallelized various simulation models on the JURECA (Exascale Supercomputer) using OpenMP and MPI
- Optimized Code using Scalasca and Improved Scheduling using Simple Linux Utility for Resource Management (SLURM)

Autolitix Technologies

Pune, India

DATA SCIENTIST

Dec. 2016 - Aug. 2017

- Developed an Intelligent Ticketing and Issue Management product using NLP, Machine Learning and Graph Databases
- This domain agnostic plug-in system which is now used by Direct Mutual Funds, Insurance and Travel Service Companies

LiveHealth

Pune, India

SOFTWARE DEVELOPMENT INTERN

Dec. 2015 - Feb. 2016

- Performed Data Integration and Mining on live on-line data for Healthcare Providers using CrossfilterJS and NodeJS
- Developed Coordinated Views for Fast Multidimensional Filtering of multivariate datasets using D3JS

Nitor Infotech

Pune, India

SOLUTION ARCHITECTURE INTERN

Jun. 2015 - Oct. 2015

- Created a Predictive Analytics Framework for Patient Care and Chronic Disease Management using AzureML and R
- Enhanced Hospital Administration and Supply Chain Efficiency for the client using Python integrations

Technical Skills

- **Programming Languages:** C/C++, Scala, Python, Haskell, JavaScript, Lisp, Scheme, Clojure
- **Databases And Distributed Systems:** Hadoop-Ecosystem, Apache Spark, MongoDB, MySQL, Cassandra, Neo4j, HiveQL
- **High-Performance Computing and Parallel Programming:** OpenMP, Message Passing Interface(MPI), CUDA, Julia
- **Machine/ Deep Learning and Data Mining/Statistics:** R, Matlab, Scikit-learn, Theano, NLTK, WEKA, Caffe, Spark (MLlib)
- **Cloud Computing Platforms:** Openstack(Nova Compute), Azure (ML and Stream Analytics), Amazon (Kinesis) and Google Cloud Platform(Big Data and ML stacks)

Projects

Machine Generation and Modeling Polyphonic Sequences using Wavenet Autoencoders

Indiana Univeristy Bloomington

UNDER PROF. MINJE KIM

Jan. 2017 - May 2018

- Worked on a research project that generates a symbolic prior from high-dimensional polyphonic music using Deep Boltzmann Machines. This prior was combined with a Style Transfer and Nynth: WaveNet Autoencoders to improve music generation quality.

Generating User Feedback: Emotion Detection from Facial Expressions using Deep Learning and Collaborative Filtering

Indiana Univeristy Bloomington

UNDER PROF. DAVID CRANDALL

Jan. 2017 - May 2018

- Developed a Deep Learning framework for capturing Facial Expressions using Facial Action Coding System in Real-Time. Further performed Time-Series analysis using Moving Averages and Jenks Natural Breaks Optimization. Collaborative Filtering was used along with Random Forests to generate live feedback.

Visual question Answering System using Deep Learning

PICT

BACHELOR'S DISSERTATION PROJECT AND THESIS

Jul. 2013 - Jul. 2017

- Implemented a Multimodal Question Answering framework for contextual data using Deep CNNs and LSTMs to answer open-ended questions using TensorFlow, Keras, Caffe.

Awards

2017 **Data Science Fellowship**, Indiana University Bloomington

MS - Data Science

Scientific Publications

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|------|---|---------------------------------|
| 2017 | Maximizing Information of Severe Weather Events Retrieved from Satellite Images , International Journal of Engineering Research and Applications | <i>ISSN : 2248-9622</i> |
| 2015 | Optimal Partitioning Methods for Image Segmentation , IET - Journal of Engineering | <i>ISSN : 2051-3305</i> |
| 2014 | Image Interpolation Techniques in Digital Image Processing , International Journal of Engineering Research and Applications | <i>ISSN : 2248-9622</i> |
| 2014 | Round off Error Propagation in Simulation of RC Circuit , Advances in Computing and Information Technology | <i>ISBN : 978-981-07-8859-9</i> |

Book on Customer Relationship Management

under Marc O'Brien, CEO ProjectLibre

California, United States

(UNDER PUBLICATION)

Jul. 2016 - Present

- Influencers and Mental Models with Consumer Behaviours mapped to Human Psychology
- Data Analytics from the perspective of Changing the SDLC (Boston Matrix Concepts)