

JISHNU DEY

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EDUCATION

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

MS IN COMPUTER SCIENCE

Expected: May 2020 | Urbana-Champaign, IL

GPA: 4.00

Coursework: Deep Learning • Advanced Information Retrieval • Distributed Systems* • Database Systems*

Research Areas: Seq2Seq & Img2Seq Models • Image Captioning • Neural Machine Translation • Deep Learning
– Development of new attention mechanisms for machine translation and sequence labeling
– Implemented a neural image caption generator with encoder fine-tuning, scheduled sampling and beam search in PyTorch; web demo hosted using HTML/CSS, Flask and jQuery

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

B.TECH IN ELECTRONICS AND ELECTRICAL COMMUNICATION ENGINEERING

May 2016 | Kharagpur, India

GPA: 9.36 / 10.00

Coursework: Machine Learning • Operating Systems • Algorithms • Programming and Data Structures • Digital Signal Processing • Image Processing • Convex Optimization • Probability and Statistics

Thesis: Distributed Deployment of Wireless Sensor Networks
– Maximization of coverage among P2P sensor nodes using distributed gradient descent method

EXPERIENCE

SAMSUNG

SOFTWARE ENGINEER (RESEARCH)

Jun 2016 - Jul 2018 | Bangalore, India

- InstaBP - Android App for Blood Pressure Measurement
 - Feature engineering and neural network modeling using NumPy & TensorFlow
 - Developed and published Android App on Google Play Store (5K+ downloads)
- Sleep-Awake Classifier - Multimodal sensor data processing and classification using SVMs; backend in C++
- Food-type Classifier - Transfer learning of ImageNet pretrained models on Samsung's in-house dataset of Indian foods

SUMMER INTERN

May 2015 - Jul 2015 | Bangalore, India

- Developed adaptive filters to reduce noise in Samsung Gear's PPG sensors
- Prototyped in MATLAB and developed C++ backend

SKILLS

General Purpose Programming: Python • C++ • MATLAB • Java • C • R

DL, ML & NLP Toolkits: PyTorch • NLTK • TensorFlow • OpenNMT-py • Keras • gensim • scikit-learn • Pandas

Miscellaneous: Android • SQL • Git • \LaTeX • HTML5 • CSS • jQuery

PUBLICATIONS

- [1] J. Dey, A. Gaurav, and V. N. Tiwari. InstaBP: Cuff Less Blood Pressure Monitoring on Smartphone Using Single PPG Sensor. In *2018 40th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, 2018.
- [2] J. Dey, T. Bhowmik, S. Sahoo, and V. N. Tiwari. Wearable PPG Sensor based Alertness Scoring System. In *2017 39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, 2017.

OTHER RESPONSIBILITIES

TEACHING ASSISTANT | CS 125 @ UIUC

Aug 2018 - Present

- Taught Java and Android programming to undergraduate students through laboratory and discussion sessions

ACHIEVEMENTS

- NASSCOM AI Game Changer Award awarded to InstaBP
 - Samsung Citizen Award for Technology Excellence in Innovator Category
 - Gold Medalist in University level Math Olympiad at IIT Kharagpur
 - All India Rank 534 (top 0.09% among 0.6 million candidates) in IIT-JEE
- Team Award | 2018
Individual Award | 2017
Team Award | 2013
Individual | 2012