

# Arnav Arnav

[LinkedIn](#): seashiva94 ▪ [Github](#): seashiva94 ▪ email: [aarnav@iu.edu](mailto:aarnav@iu.edu) ▪ Phone: 812-955-9112

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## EDUCATION

**Indiana University**, Bloomington, IN, US

*Master of Science in Data Science*

**August 2017 – May 2019**

CGPA 3.88/4

**Tezpur University**, Tezpur, Assam, India

*Bachelor of Technology in Computer Science and Engineering*

**August 2012 – July 2016**

CGPA 8.98/10

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## TECHNICAL SKILLS

- **Languages:** Python, C++, R, SQL, Ruby
  - **Data Analysis:** Numpy, Scipy, Scikit-Learn, Pandas, Librosa, NLTK, Tensorflow, Keras, Dask, PySpark,
  - **Visualization:** Seaborn, Matplotlib, Altair-viz, Bokeh
  - **Web Technologies:** Ruby on Rails, Flask, Django, HTML, CSS, Javascript, Ember.js
  - **Other Technologies:** OpenCV, Amazon AWS, Swagger API, Docker, Travis-CI, Open Stack API, Kubernetes
  - **Operating systems:** Linux (Ubuntu, Mint, Fedora), Microsoft Windows
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## PROJECTS

**Speaker Identification and Verification from Audio**, Indiana University **August 2018 – December 2018**

- Trained a Siamese neural network based on VGGVox model on the VoxCeleb dataset using PyTorch on AWS and achieved 0.78 precision and 0.84 recall on the data.
- Developed a terminal application for speaker identification and verification. Link to code [here](#).

**Image Captioning using Deep Learning**, Indiana University

**April 2018**

- Learned about state of the art Image captioning models.
- Implemented an Encoder-Decoder based Deep Learning model derived from the show and tell approach that uses a CNN followed by an LSTM to learn mapping between images and captions in Keras.
- Evaluation of the performance based on BLEU score of the model for various CNN models: VGG16, VGG19 and ResNet50. Link to the code [here](#).

**Open Domain Information Extraction**, Indiana University

**July 2018 - Present**

- Extract object-predicate relationships from text using various NLP modules and store them in a graph database to enable semantic search.
- Linked Named Entities to various existing knowledge graphs (Dbpedia), and enriched the knowledge graph by adding information from various reliable sources such as Concept Net and MS Concept Graph.

**Raspberry Pi Robot Car Using MQTT**, Indiana University

**August 2017 – December 2017**

- Built, and deployed a raspberry pi robot car that can be controlled remotely from a desktop using MQTT.
  - Used the Raspberry pi on board camera to stream image frames back to the controlling desktop to allow the user to monitor the surroundings and navigate the car without colliding into obstacles. Link to code [here](#).
  - Contributed to cloudmesh.pi, a Raspberry Pi library for IoT and Robotics.
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## WORK EXPERIENCE

**Associate Instructor**, Indiana University

**August 2018 – Present**

*Advanced Data Science On Ramp Course*

- Evaluated student submissions in various modules that cover, Hadoop, Spark, Scala, and Deep learning.
- Created course content for Machine Learning with Spark module and updated content for other modules.

**Navyug Infosolutions**, Noida, Sector 63, India

**March 2017 – July 2017**

*Software Engineer Intern*

- Developed and deployed an internal project management web application using Ruby on Rails and Ember.js working in an agile environment.
- Developed mobile version of the application for Android and iOS platforms using Apache Cordova.
- Added support for admin to generate progress reports, auto-generate time-sheets and share them with users on Google Drive.