

Devendra Vyas

GRAD STUDENT IN INFORMATICS · AI PRACTITIONER

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Education

Technical University of Munich

Munich, Germany

MASTERS IN INFORMATICS (MAJOR: MACHINE LEARNING AND ALGORITHM)

Oct'19 - Present

The LNM Institute of Information Technology

Jaipur, India

BACHELORS OF TECHNOLOGY IN COMPUTER SCIENCE AND ENGINEERING(2012-2016)

GPA: 8.06/10.0 (ca. 2.1 on German scale)

Aug'12 - May'16

Work Experience

Terraloupe GmbH

Munich, Germany

ML ENGINEER (WERKSTUDENT)

Oct. 2019 - Present

- Integrated Sacred(a tool used for maintaining reproducibility) and Omniboard(a tool to visualize data stored by Sacred in a MongoDB server) with TPU-pipeline on GCloud Engine
- Trained Deep Learning models on TPU and GPU on GCloud to compare performance
- **Tools Used:** Tensorflow, Jupyter Notebook, GeoPandas, Pandas, Sacred, Numpy

KPIT GmbH

Munich, Germany

SOFTWARE ENGINEER (AUTONOMOUS DRIVING PLATFORM)

Jan. 2019 - Aug. 2019

- As Part of a cross functional team developed vehicle state montior to handle, process and visualize high throughput data (10 Gb/sec) using ROS pipeline
- **Tools Used:** C++, ROS

XLIM-SIC Lab(CNRS)

Poitiers, France

RESEARCH ENGINEER (Supervisor: Dr. Pierre Combeu)

Jan. 2017 - Aug. 2018

- Developed a simulator to implement a novel algorithm for Ray-tracing with real world constraints
- Optimized algorithm both for memory and execution performance to perform with large-scale GPS data of buildings in an urban environment via curve simplification algorithms and efficient multi-threading
- **Tools Used:** Java, OpenStreetMaps, MATLAB

Internships

Scholfin

Remote Internship

SOFTWARE DEVELOPER (WEB)

Feb. 2016 - April. 2016

- Worked on their core product *Scholarship recommender system*. Responsible for maintaining and upgrading the backend of the site.Integrated SMS and Email cron-job for regular user updates. Tweaked functionality for provider dashboard
- **Tools Used:** Python, Django, Postgre-SQL, Mailchimp

WeDoSky

New Delhi, India

DATA ENGINEER (AERIAL DATA)

May 2015-June 2015

- Photogrammetry and 3D Reconstruction : Developed 3D model of the object, captured from all angles using a drone.
- Developed a system where placement of Solar panels can be visualized on a roof (captured using drone) with features like rotation of panel, grouping multiple panels, and horizontal/vertical spacing in an efficient way.
- **Tools Used:** Javascript, Bash, CMPMVS, AWS, Blender

Indian Institute of Technology, Delhi

New Delhi, India

ANDROID DEVELOPER

Dec. 2013-Jan 2014

- A joint effort by NSS and IIT-Delhi to improve drainage system of Delhi via crowdsourcing complaints by local Delhi citizens using the app we created during internship. Worked in a cross-domain work environment with contributions from students and professors from Civil and Electronics Engineering. Designed and developed database schema for the app
- **Tools Used:** Android SDK, SQLite

Publications

Conference

CO-AUTHOR

Jan. 2018

- **Title** - *CupCarbon: A new platform for the design, simulation and 2D/3D visualization of radio propagation and interferences in IoT networks* (Authors: Ahcene Bounceur, Laurent Clavier, Pierre Combeau, Olivier Marc, Rodolphe Vauzelle, Arnaud Masserann, Julien Soler, Reinhardt Euler, Taha Alwajeeh, Vyas Devendra, Umber Noreen, Emilie Soret, Massinissa Lounis)
- Published in Consumer Communications & Networking Conference (CCNC), 2018 15th IEEE Annual conference

Achievements

Facebook PyTorch Scholarship

Online

SELECTED AMONG A POOL OF STUDENTS ACROSS GLOBE TO LEARN PYTORCH: ML FRAMEWORK BY FACEBOOK

Nov. 2018- Jan. 19

Corporate Trainer & Speaker

Multiple cities across India

INVITED AS A SPEAKER FOR MTS SISTEMA SHYAM TECHNOLOGIES AND USHA INTERNATIONAL

May 2016 - Dec. 2016

ACM-ICPC 2015

Kharagpur & Amritapuri, India

REPRESENTED MY UNIVERSITY AT NATIONAL LEVEL IN AN INTERNATIONAL PROGRAMMING CONTEST

Dec. 2014

Projects

Self Driving Car

ONLINE NANODEGREE : UDACITY

Jul. 2017 - Sept. 2018

- **Behavioral Cloning:** Designing a neural network that can take inputs from a driving simulator and then mimic the driving style of the player based on steering angle and view from front, left and right camera
- **Detecting lane Lines:** Detecting boundary lines for the cars using OpenCV
- **Traffic Sign Classifier:** Using German Traffic Sign database made a project that identifies and differentiates between 32 categories of Traffic signs using Tensorflow
- **Technologies used:** Python, Tensorflow, OpenCV, Keras

Neural Translation

DEVELOPED AS A PROOF OF CONCEPT TO UNDERSTAND RECURRENT NEURAL NETWORKS

July 2018

- Neural Translator(French to English) using RNN, implementing and understanding difference in results based on using GRU, LSTM, Attention Model and Bi-directional RNN
- **Technologies used:** Jupyter Notebook, fastai(library), NLP

Twitter Analysis: Structural vs Qualitative (B.tech Project)

MENTOR: DR. SAKTHI BALAN & PROF. RAVI GORTHY

Aug. 2015 - May 2016

- Aiming to find a possible mapping between the two types of tweet classifications proposed by **Pew Research Centre** and **Mr. Nirmal Kumar with Srinath Srinivasa**
- **Technologies used:** R, Python

Position of Responsibility

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| 2016 | Organiser @LNM-Hacks: First-ever university wide Hackathon which now in it's third iteration witnesses applicants throughout India |
| 2016 | Teaching Assistant: Database Management System using IBM DB2 Lab |
| 2015 | Teaching Assistant: Object Oriented Programming(OOP) using Java Lab |
| 2015-16 | Student IT Team -Founder & Team Lead: Team formed to address and resolve student's IT-related issues before reporting System admin |
| 2015-16 | AC-SAC (General Body), Student Gymkhana-2015-16, LNMIIT: Committee to deal with student affairs |
| 2012-13 | Student Mentor for Socios: College team, comprising of 120 students, that participated in a National Event, <i>Reform'N'ation</i> , by IIT Bombay |

Skills

Programming Languages: C, C++, Java, Python, R, Bash, PHP, Octave/MATLAB

Query Languages: MsSQL, MySQL, Postgre-SQL

Frameworks/IDE: Django, Eclipse, NetBeans

Toolkits: Tensorflow, Keras, PyTorch, OpenCV, BeautifulSoup, JSoup, Hadoop(Basics)

Misc.: Omnet++, VisualSFM, CMP-MVS