VIGNESH NARAYANASWAMY

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https://github.com/Vignesh-Nswamy/

EDUCATION

UNIVERSITY OF ILLINOIS AT CHICAGO   **CHICAGO, ILLINOIS**
Master of Science in Computer Science   *Anticipated May 2021*
Focus Areas: Deep Learning, Machine Learning, Data Science
Cumulative GPA: 4.0/4.0

ANNA UNIVERSITY (VELAMMAL ENGINEERING COLLEGE)   **CHENNAI, INDIA**
Bachelor of Engineering in Electrical and Electronics Engineering   *April 2017*
Cumulative GPA: 8.17/10.0

TECHNICAL SKILLS

Programming Languages: Java, Python

Frameworks/Technologies/Libraries/Databases: TensorFlow, PyTorch, Fastai, NumPy, Scikit-learn, Pandas, Struts, MySQL, Microsoft Azure, Jupyter, PySpark

EXPERIENCE

MARINER   **CHARLOTTE, NC**
Data Science Intern (Remote)   *January 2021 - Present*
· Deployed a PixelLink-like deep learning model on Azure to detect text in engineering drawings.
· Working on GenICam Python SDK to detect and control GigE Vision cameras.

UNIVERSITY OF ILLINOIS AT CHICAGO   **CHICAGO, IL**
Graduate Student Researcher   *March 2020 – December 2020*
· Used OpenCV to synchronize multi-perspective videos by tracking a moving object in the video streams.
· Trained Time Contrastive Networks on unlabeled multi-perspective videos to learn viewpoint-invariant representations, which were later used to aid a robot (UR10e) to imitate tasks performed by a human demonstrator.

MARINER   **CHARLOTTE, NC**
Data Science Intern (Remote)   *June 2020 – August 2020*
· Annotated engineering drawings using CVAT tool and prepared datasets to train text detection and segmentation models.
· Utilized OpenCV and PixelLink-like text detection model from OpenVino respectively to detect objects and text in engineering drawings.
· Fine-tuned U-Net and DeepLab segmentation models and used them along with Azure OCR for localized information extraction from engineering drawings.

ZOHO CORPORATION   **CHENNAI, INDIA**
Member Technical Staff | Zoho Creator   *May 2017 – June 2019*
· Enhanced Zoho Creator's API infrastructure by rewriting them using updated internal frameworks for data retrieval and caching resulting in reduction of performance bottlenecks by up to 75%.
· Developed tools using Bash and Python to automate DevOps processes, saving developers up to 20 minutes every day.
· Facilitated planning and review discussions with customer support teams and project leads to establish project goals and timelines.

PROJECTS

INCORPORATING BERT INTO ABSTRACTIVE TEXT SUMMARIZATION   *May 2020*
· Led a team of graduate students in building and training a custom Transformer architecture with a pre-trained BERT encoder backbone on CNN Dailymail dataset to summarize news articles.

ALZHEIMER'S DISEASE DIAGNOSIS USING DEEP LEARNING   *May 2020*
· Headed a team of two graduate students in designing Deep 3D Convolutional Networks to diagnose Alzheimer's Disease and Mild Cognitive Impairment using 3-D neuroimages and patient demographics.

CERTIFICATIONS

· Neural Networks and Deep Learning by deeplearning.ai on Coursera.   *January 2020*
· Introduction to TensorFlow for Artificial Intelligence, Machine learning and   *January 2020*
  Deep Learning by deeplearning.ai on Coursera.