# Kaushik Mani

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### AREAS OF INTEREST

Machine Learning • Deep Learning NLP • Software Engineering

### **FDUCATION**

#### THE OHIO STATE UNIVERSITY

MS IN COMPUTER SCIENCE Expected May 2020 | Columbus, OH Cum. GPA: 3.73 / 4.0

#### **NIT TRICHY**

B.TECH IN ELECTRONICS AND COMMUNICATION ENGINEERING May 2015 | Trichy, India Cum. GPA: 8.52 / 10.0

### LINKS

LinkedIn:// kaushikmani Github:// kaushikmani

### COURSEWORK

Machine Learning
Advanced Artificial Intelligence
Introduction to Data Mining
Computer Vision
Foundations of Programming Languages
Algorithms
Operating Systems

### SKILLS

#### **PROGRAMMING**

Over 5000 lines:

Java • Python • Shell • Javascript Over 1000 lines:

MySQL • C • C++ • SAP UI5 • LATEX Familiar:

Matlab • HTML • CSS • Neo4i

#### **TOOLS/PACKAGES**

Expert:

Pytorch • Keras • Scikit-Learn SAP HANA • Numpy • Pandas Matplotlib • Git

Proficient:

Maven • Springboot • Docker Swagger • gensim

Familiar:

Tensorflow • Kafka • Kubernetes

### **ACHIEVEMENTS**

Speaker, TechEd Conference, SAP Delegate, Indian Cancer Congress Outstanding Merit in Maths '09, '11

### RESEARCH/WORK EXPERIENCE

# GRADUATE STUDENT RESEARCHER | ADVISOR: DR. HUAN SUN | NOV'18 - PRESENT | COLUMBUS, OHIO

• Exploring Deep Learning strategies to automatically generate domain-specific questions for sentences in clinical notes.

### **SOFTWARE DEVELOPER** | SAP | BANGALORE, INDIA | JUL'15 - JUL'18 SAP Connected Health Platform (On-Premise):

- Worked on the development of Plugin Framework and Data Integration which act as a framework for integration of healthcare data from external source systems into the clinical data warehouse.
- Developed features like Profile Chaining, Profile Scheduling and UI Integration in Data Integration framework which helped in automating the process of bringing the healthcare data from the external source systems.
- Maintained the production code by writing unit tests and fixing issues during AT phases. Also mentored the interns to get on track with technology stack and standard industry practices.

#### SAP Health Platform (On-Cloud):

- Developed microservices for ingesting clinical data stored in both structured and unstructured format in an industry standard way for upstream analysis.
- Developed API's for a HL7 message server along with message transformation capabilities to convert the HL7 messages into FHIR form.

# GRADUATE TEACHING ASSOCIATE THE OHIO STATE UNIVERSITY JAN'19 - MAY'19 | COLUMBUS, OHIO

• Instructor for course CSE 1222 – Introduction to Computer Programming in C++ for Engineers and Scientists. Conducted classes, labs and graded the exams, assignments for 80 students.

### **PROJECTS**

### CLINICAL PHRASE MINING | ADVISOR: DR. HUAN SUN | NOV'18 - JUL'19

Designed and proposed a new framework named ClinPhrase to effectively and efficiently extract quality phrases from clinical documents with only a limited amount of training data. This work has been submitted as a paper to Oxford Bioinformatics Journal and is under review. **Github Repo**.

## **EXPANDING HORIZONS IN KNOWLEDGE GRAPH COMPLETION** | Feb<sup>1</sup>19 - Apr<sup>1</sup>19

Extended the knowledge graph completion model TransE, by incorporating the natural language aspect of the knowledge graph for KG completion models. **Frameworks:** Pytorch.

#### NEURAL IMAGE CAPTION GENERATION | FEB 19 - APR 19

Extended the multimodal neural approach in image captioning with attention network and transfer learning methods. **Github Repo**.

### SPEECH ENHANCEMENT USING NEURAL NETWORKS | Oct 19 - Dec 19

Explored various deep learning architectures to create a frontend component for ASR systems that enhances the quality of noisy signal before it can be used for speech recognition. **Github Repo**.

### INDIAN CANCER PROJECT | SAP Labs India | May 16 - Dec 16

Built plugins to collect, curate and analyze data for improving cancer treatment in India. The solution is being used by 10 hospitals in India with 1 million records in the system and was presented at multiple conferences.