# Lakhan Tanaji Kadam

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## **Education**

 Lovely Professional University Punjab, India Bachelor of Technology, Computer Science (GPA: 9.1/10.0) Aug 2014 - June 2018

# Work Experience

 Xperi Corporation Bengaluru, India Nov 2019 - Present Software Development Engineer | Python, Java, C, Clojure, Cython, Shell

- o Developing core algorithms for Advanced Search and Recommendation.
- Implementing new features for the Conversation product.
- Developing and integrating data publish pipelines for multiple customers.
- Data generation and data merge optimization.
- TiVo Corporation Bengaluru, India Software Development Engineer | Python, Haxe, C++, JavaScript, Shell July 2018 - Oct 2019
  - Developed core functionality for TiVo STBs.
  - TiVo App development for Android Tv, Apple Tv and Web.
  - o Developed HDR, VOD, SOCU and SCTE-27 subtitle feature for TiVo STBs.
  - Extraction and analysis of STB and TiVo app logs.
- TiVo Corporation Bengaluru, India Jan 2018 - Jun 2018

Software Development Engineer Intern | Python, Haxe, C++, JavaScript, Shell

- HDMI-CEC feature development for TiVo STBs.
- o Optimized translations delivery for multiple languages.
- Optimized feature and regression testing for TiVo STBs.
- Developed tool to monitor service minds availability.
- TiVo Corporation

Software Development Engineer Intern | Swift, Objective-C, Python, C, JavaScript.

- Developed application features for TiVo iOS app.
- Optimized regression and smoke testing for TiVo mobile app.
- Fixed and dev tested bugs for TiVo mobile app.
- · Optimized memory management for TiVo mobile app.
- VenturePact LLC

Software Development Engineer Intern | MongoDB, Express.js, Angular, Node.js

- Developed placement portal for students.
- · Optimized website performance and regression testing for placement portal.

Bengaluru, India Jul 2017 - Dec 2018

Jun 2017 - Jul 2018

Punjab, India

#### **Technical Skills**

- Programming languages: Java, Python, C/C++, Haxe, Closure, JavaScript, Shell
- Libraries: NLTK, PyTorch, Keras, TensorFlow, Scikit-learn, Pandas, SpaCy, Gensim, Wapiti, Numpy
- Databases: MySQL, PostgreSQL, Redis, MongoDB, GraphQL
- Stack: NLP, NER, CRF, RASA, AWS Cloud, Docker, DVC, Supervisor, Jenkins, ELK, Zabbix, Apache
- Frameworks: Django, Flask, Angular, jQuery
- Developer Tools: GitHub, Jira, Confluence, Gitlab, VS Code

## **Patents & Publications**

- Systems and Methods for Improving Content Recommendations Using a Trained Model (us 16/806,991, us 16/806,995) [Link] [Draft]
  - · Problem Statement: Current recommendation systems do not recommend interesting clips for a content.
  - Solution: Suggest points of interest using LSTM Recurring Neural Networks.
- Systems and Methods for Improving Comprehension in Translation Based on Context-based References (us 17/036,696) [<u>Draft</u>]
  - Problem Statement: Current translation systems do not consider local regional factors for context references.
  - Solution: Replace entity by comparing qualities of the previous entity by giving weightage to the factors.
- Systems and Methods for Converting an Input Content Item Based on Contexts (us 17/108,180) [Draft]
  - Problem Statement: A word can have several meanings based on region and can mean differently in a region.
  - Solution: Consider regional factors and replace it with another global word using knowledge graph.

# **Projects**

- Named Entity Recognition [GitHub] | Python, Keras, TensorFlow, Numpy, Sklearn, Pandas
  Named Entity Recognition for dataset using Neural Networks
- Text Emotion Detection [GitHub] | Python, Sklearn, SVC, LSVC, RFC, DTC
  - Detecting emotion in text using different classifiers
- Email Spam Detection [GitHub] | Python, Sklearn, Numpy, NLTK
  - · Filtering spam emails using multinomial NB
- · Product Recommendation System [GitHub] | Python, Pandas, Numpy
  - · Recommending products based on history and preferences
- · Seller Management App [GitHub] | JavaScript, Angular, MongoDB, Node.js, TypeScript
  - Managing shopkeeper purchase and sell of products
  - · Recommending product to shopkeepers for buying based on demand

- Perforce Shelve Patcher [GitHub] | Python
  - Script to shelve and un-shelve perforce history to and from zip
- TiVo Coins | Python, Haxe, C++, JavaScript
  - Providing coins as reward for customers watching premium VOD content.
  - Redeem coins to unlock other premium VOD content.

#### **Presentations**

- Tech Talk: Quantum Computing at TiVo (September 2019)
- Intern Showcase: TiVo Stream and STB (June 2018)
- Intern Showcase: TiVo iOS app (Jan 2018)

# **Awards & Honours**

- 4000 USD by Xperi under innovation awards (2020)
- High-5 Award at Xperi for exemplary performance (2020 & 2021)
- Runner up at TiVo Hackathon (2019)
- Runner up at CodeStorm event by ACE LPU (2015)
- Winner at AstroQuiz event (2014)
- Awarded 50% scholarship as waiver in tuition fees (2014)
- Gold medallist in International Olympiad of Mathematics (2012)

#### **Certifications**

- iOS 11 & Swift 4 The Complete iOS App Development Course [Certificate]
- Artificial Intelligence A-Z: Learn How to Build an AI [Certificate]
- Machine Learning A-Z: Hands-On Python & R in Data Science [Certificate]
- The Complete React Native + Hooks Course [Certificate]

### **Organizations**

• Armour of Care (AoC) Member

Sept 2018 - Present

- Helping defence veterans and active personnel for recruitment in civil jobs
- Serving fellow citizens in case of natural calamities
- Providing quality education to deprived children
- Uttara Astronomy Club

Aug 2014 – Dec 2016

- Organizing telescope observation events and seminars
- · Encouraging students to learn about astronomy