

# Goutham Kanahasabai

📍 Boston, MA | 📞 (857) 376-1251 | ✉️ [kanahasabai.g@northeastern.edu](mailto:kanahasabai.g@northeastern.edu) | [in LinkedIn](#) | [GitHub](#) | [Google Scholar](#)

## EDUCATION

**Master of Science, Software Engineering Systems | GPA: 4.0**  
Northeastern University, Boston, MA

**Expected April 2024**

**Bachelor of Technology, Computer Science and Engineering**  
National Institute of Technology, Warangal, India

**August 2020**

## TECHNICAL SKILLS

**Programming Languages:** Java | Kotlin | Python

**Libraries:** spaCy, NLTK, OpenCV, NumPy, Pandas, scikit-learn, TensorFlow

**Cloud-Native:** AWS, Docker, Kubernetes, Helm

**DevOps and tools:** Gradle, Maven, Git, GitHub, Jenkins, New Relic, Prometheus, BitBucket, Swagger

## EXPERIENCE

**Pegasystems Inc., Hyderabad, India | Software Engineer**

**August 2020 – August 2022**

- Won a tribe-level spot award for outstanding contributions by spearheading a proof-of-concept that aided multiple teams in transitioning to a new Observability platform by alleviating manual effort
- Collaborated closely with engineers, architects, and product owners on a cross-regional proof-of-concept project and presented a demo to the CPO, VP of Engineering and other stakeholders
- Programmed and integrated a custom retry component with fail-fast mechanisms in RxJava that augmented the overall resiliency of a microservice
- Devised dynamic dashboards and alerting frameworks in the New Relic One platform to visualize logs, metrics, and traces of microservices. This refined the overall observability and accelerated triaging of forthcoming bugs and production issues

## PROJECTS

### Text Analysis with Natural Language Processing

**Nov 2022 – Dec 2022**

- Analyzed the book 'A Brief History of Time' using NLP techniques to deduce vital information like central theme, sentiment etc.
- Generated word embeddings and wordclouds to understand the theme the book
- Employed topic modelling and ranking algorithms to derive the most common topics in each chapter and the most important sentences throughout the corpus
- Used NLTK to derive the sentiment of each sentence and crafted accurate deep learning models for sentiment analysis

### **Intelligent Garment Detection using Deep Learning**

**July 2020 – Dec 2020**

- Designed a multi-pipeline model to detect fashion items that customers find interesting using Image Processing and Deep Learning
- Created a custom video data set by obtaining CCTV footages of fashion stores
- Used GMG background subtraction model to obtain relevant foreground information along with foreground masks.
- Leveraged Mask R-CNN object detection model is used to identify customers and other image processing techniques to obtain the active garments in frames
- Employed object tracking to monitor detected customers and used OpenPose pose estimation framework to obtain useful landmarks.
- Published in HICO: <https://onlinelibrary.wiley.com/doi/10.1002/9781119792642.ch3>

## PUBLICATIONS

- Intelligent Garment Detection using Deep Learning [HICO 2020](#)
- SD-Measure: A Social Distancing Detector [IEEE CICC 2020](#)
- Deep Learning Framework to Detect Face Masks from Video Footage [IEEE CICC 2020](#)
- Detection of Customer Interested Garments in Surveillance Video using Computer Vision [IEEE ICCNT 2020](#)
- Detect Customer Age, Gender and Expression in Surveillance Video [IEEE ICCNT 2020](#)
- Computer Vision-based Accident Detection in Traffic Surveillance [IEEE ICCNT 2019](#)