Kavin Chandrasekaran

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Education

- **Worcester Polytechnic Institute** — Worcester, MA
  PhD in Data Science — *December 2023(Expected)*
- **Indiana University** — Bloomington, IN
  Masters in Security Informatics — *May 2013*

Skills Summary

- **Languages**: Python, Java, SQL
- **Data Visualization Tools**: Tableau
- **Frameworks**: Hadoop, Spark, MongoDB, PyTorch, Scikit-learn, Streamlit

Experience

- **Data Science Intern** — May 2022 - August 2022
  Clean Crop Technologies — *Holyoke, MA*
  - Built an end-to-end data science framework to aid in adaptive design of experiments for research in sustainable food production
- **Research Assistant - Prof. Emmanuel Agu** — May 2018 - Current
  Worcester Polytechnic Institute — *Worcester, MA*
  - Developing machine learning and deep learning architectures for sensor driven complex human activity recognition and generative models to be used in patient monitoring, ailment predictions and overall healthcare improvement
- **Sr. Infrastructure Services Engineer** — July 2013 - December 2015
  National Government Services — *Indianapolis, IN*
  - Pioneered an effort to integrate OEM into daily monitoring workflow and created a centralized dashboard for monitoring and troubleshooting the application using the product iDashboards
  - Created and maintained scripts to monitor the performance and availability of the application and create automated reports using data from Patrol, OEM and BAC (Business Availability Center)
- **IT Intern** — January 2013 - April 2013
  National Government Services — *Indianapolis, IN*
  - Worked on a CSR Staffing analysis to predict the CSR staffing requirements, based on previously known staff availability, requirement and their efficiency

Selected Publications

Peer-reviewed Publications

1. *Get Up! Assessing Postural Activity & Transitions Using Bi-Directional Gated Recurrent Units On Smartphone Motion Data* **K. Chandrasekaran**, W. Gerych, L. Buquicchio, E. Agu, & E. Rundensteiner. IEEE Healthcare Innovations and Point-Of-Care Technologies, 2019.
2. *CARTMAN: Complex Activity Recognition Using Topic Models for Feature Generation from Wearable Sensor Data* **K. Chandrasekaran**, L. Buquicchio, W. Gerych, A. Alajaji, E. Agu, & E. Rundensteiner. IEEE International Conference on Smart Computing (SMARTCOMP), 2021.

Selected Academic Projects

- **PlentyOfReviews (Spring 2018)**: Developed a website which provides users the most diverse reviews for a given airbnb listing. Built using machine learning techniques like topic modeling
- **Country classification based on accent (Spring 2018)**: Designed a multi-task learning approach using neural networks to determine the country of origin of a person based on their accent
- **Big Friends - Trust friends with Facebook Posts (Spring 2013)**: Designed and developed a mechanism for screening impetuous Facebook posts made during intoxication. Developed a Windows Phone application, which implemented the screening mechanism by posting to Facebook, only after ensuring the deliberateness or getting feedback from a set of trusted friends
- **Health Monitor Using Kinect (Spring 2012)**: Developed a health monitor application using the Kinect sensor, which monitored the food habits and analyze the amount of junk food consumed by the user (Oral Presentation at: Evaluation of Off-the-Shelf Technologies for Health Applications, UbiComp 2012)