

Sneha Mahapatra

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EDUCATION

University of Massachusetts, Amherst, MA
Masters of Science in Computer Science

Sept 2021 - May 2023

Purdue University, West Lafayette, IN
Bachelors of Science in Computer Engineering

Aug 2017 - May 2020

EXPERIENCE

Superluminal
Software Developer

July 2023 - Present
Albany, NY

- Engineered a desktop version of a medical web application, broadening user accessibility across 100% of our clientele.
- Enhanced back-end functionality by developing services and seamlessly integrating them into the API.
- Integrated third-party tools and developed service for comprehensive logging to increase efficiency for triaging by 200%.
- Architected language translation tool to translate language used in web application according to their user's location.
- Developed and integrated Authentication party for medical applications to increase security of patients' data.
- Curated modern UI to implement front-end features.
- Skills Acquired: C#, .Net, Azure, SQL, SQLite

Ford Motors Co. - GDIA
Software Engineering, Internship

May 2022 - Aug 2022
Detroit, MI

- Programmed endpoints in Spring Boot for tabled data manipulation.
- Wrote SQL queries for data manipulation.
- Developed Python Script to call Endpoints.
- Designed Mobile Application for Ford vehicles in 2 Day Hackthon Challenge.
- Skills Acquired: Spring Boot, Java Development, Jenkins, Hadoop, SQL, Git, Pyspark, Python Scripting and Development, 42Crunch, RESTful API

University of Massachusetts, Amherst - BioNLP
Application Developer Research Assistant, Research

Sept 2021 - present
Amherst, MA

- Developed iOS mobile application to help users in poverty find resources and programs to help them in times of need.
- Integrated Mapbox software library, and Firebase to help uses find tailored resources close to them.
- Engineered web crawling programs to find resources and create a database of resources.
- Fine tuning BERT NLP model to extract important information from resources to create a tailored experience.
- Skills Acquired: iOS mobile development, Firebase, Mapbox, Natural Language Processing

PROJECTS

596E: Machine Learning for Child Rescue

Apr 2020 - Jul 2020

Jagath Jai Kumar and Benjamin Glickenhau, UMASS Rescue Lab

github.com/UMass-Rescue/mobile_app + /desktop_app

- Designed two React-Native Applications that aid law enforcement of different departments to canvas trackers and evidentiary material
- Developed mobile application and desktop application that connects to Fast API back-end and MongoDB.
- Skills Acquired: Expo, React-Native, MongoDB, Fast API, Typescript, JavaScript, RESTful API (React)

Senior Design: EPCS 412

Jul 2020 - Nov 2020

Prof. Nusaybah Abu-Mulaweh, Purdue University

github.com/sne21star/mediapipe

- Designed and developed a Real Time ASL translator application that uses Computer Vision to translate American Sign Language (ASL) for Senior Design.
- Architected iOS application that integrated Mediapipe and ASL translator ML model. Application integrates a static sign ASL translator tailored to the Indiana Sign Language.
- Fined tuned existing ML Model and integrated it with Google's Mediapipe software framework to interpret the ASL Alphabet to increase accuracy to 94%
- The application supports nine different categories and includes a dynamic-sign translator that can translate phrases in ASL alphabet.
- Design Team lead for two semesters
- Skills Acquired: Computer Vision Model Development, iOS Development, Integrating CV ML Model, Project Manager

Continuous Analysis of Many CAMeras

Mar 2020 - Aug 2020

Dr. Lu, CAM2

arxiv.org/abs/2005.09091

- Research team that revolves around using worldwide cameras and interpret data from the Cameras
- Designed and developed web scraper that could parse different live cameras for information about the public and be used to decipher mask wearing during COVID-19 pandemic.

TECHNICAL SKILLS

Programming languages: Python, Java, C#, Matlab, C++
ML/AI: PyTorch, Numpy, Pandas, Tableau

Web Technologies: JavaScript, Typescript, React, Node.js
Miscellaneous: SQL, Git, Windows, Firebase, MongoDB, Django

RELEVANT COURSEWORK

Machine Learning: Neural Networks, Machine Learning, Artificial Intelligence, Python for Data Science

Software: Advanced Algorithms, Software Theory, Object Oriented Programming

PUBLICATIONS

Shengtai Ju, Sneha Mahapatra. *Turkey Behavior Identification System with a GUI using Deep Learning and Video Analytics. IS&T Electronic Imaging*, 2020.

Isha Ghodgaonkar, Abhinav Goel, Fischer Bordwell, Caleb Tung, Sara Aghajanzadeh, Noah Curran, Ryan Chen, Kaiwen Yu, Sneha Mahapatra, Vishnu Banna, Gore Kao, Kate Lee, Xiao Hu, Nick Eliopolous, Akhil Chinnakotla, Damini Rijhwani, Ashley Kim, Aditya Chakraborty, Mark Daniel Ward, Yung-Hsiang Lu, George K. Thiruvathukal. *Observing Responses to the COVID-19 Pandemic using Worldwide Network Cameras. 2020.*

ABSTRACTS

Sneha Mahapatra, Huan-Yuan Chen, Professor Hong Yu. NLP and Annie App for Social Determinants of Health. AMIA 2022 Clinical Informatics Conference May 24-26; Houston TX.

ACHIEVEMENTS

Scholarship	RCA Zworykin	2020
Scholarship	McDonnell Douglas Minority and Women	2020
Honor Society	Alpha Lambda Delta Phi Eta Sigma	2018