Adithya Kethu

+1 413-930-5170 | akethu@umass.edu | GitHub Profile | Website | LinkedIn Profile

EDUCATION

University of Massachusetts, Amherst Amherst, MA
Honors in Computer Science and minoring in Business December 2022
Awards: Dean's List; Chancellor's Award for Merit; GPA: 4.0/4.0
Relevant coursework: Machine Learning; Artificial Intelligence; Algorithms; Data Structures; Web Programming; Programming methodologies; Reasoning under Uncertainty; Computer Systems (C); Introduction to Computation

SKILLS

Tools/Frameworks: Django, Flask, Bootstrap, Heroku, Git, Bitbucket, Flutter, Node.js, MongoDB, Deep Learning
Technical Languages: Python, Java, C, JavaScript, HTML5, CSS3, SQL, NoSQL, React, CUDA

EXPERIENCE

TOOTHPRINTS PC Natick, Massachusetts
Software Engineer Intern May 2021 - August 2021

- Worked with an orthodontist on helping him revise, design and manage the technical landscape for the company.
- Built a python algorithm for a scientific app (Pacified App®, now published) by reviewing scientific journals.
- Used a face recognition API to code the algorithm which suggests the *scientifically* right pacifier for a baby based on facial biometric measurements. Generated mathematical models to verify results.
- Built the company website from scratch using HTML5, CSS3, Bootstrap, JQuery and API (for contact form).
- Built a website from scratch using React for the Pacified App®.

BUILD UMASS Amherst, Massachusetts
Tech Lead August 2021 - Present

- Managing 3 software developers and 3 business developers throughout the software lifecycle.
- Working with the client on building an optimized OCR application, which can analyze text/match similar images.

DATA SYSTEMS Amherst, Massachusetts
CS Undergraduate Research Assistant June 2021 - Present

- Worked on "Stochastic Training in Graph Neural Networks (GNN's)" and "Rejection Sampling with Deep Graph Learning" using Python and PyTorch modules.
- Doing an Honors thesis in this lab wherein my research study revolves mainly on integrating deep graph libraries with NextDoor's API (using Python) and optimizing NextDoor to work for bigger graphs (by using C & CUDA).

PROJECTS

AROUND UMASS WITH DGL - Built using Python, Django, PyTorch and Deep Graph Learning (DGL).

- Built an interactive navigator for my university from scratch, using tensor graphs.
- Used a combination of DFS, BFS and DGL graphs to recommend the shortest path between 2 nodes (buildings).

GNATHIC CLICK APP - Built using Flutter, Python (Flask), Face Detection Algorithm & MongoDB

- Spearheaded the production by designing and coding the UI for the app from scratch using Flutter & Dart.
- Designed a Random Forest ML algorithm to predict the condition with upto 90% accuracy+precision.
- Used a face alignment API to analyze facial biometrics so as to evaluate cranio-facial growth.

PACIFIED APP® - Built using Python, Django, Deep Graph Learning and Face Alignment Algorithm.

- Designed an algorithm for a published app which scans the face and suggests the scientifically-right pacifier.

SIMPLE TO-DO CLI - Built using Python, Click & SQLite.

- A command line interface, integrated with password authentication, that lets users register/create/delete to-do tasks.
- Designed reusable code which can be combined with more code constructs/features.

CONFERENCES

World Sleep 2022 March, 2022

- Got selected to present an abstract thesis for Gnathic Click app's algorithm in Rome.
- Designed an algorithm which scans a baby's face and aids as a screening tool for orthodontists to diagnose prognathism or retrognathism; the app can save thousands of dollars for parents if diagnosed early.

OPEN SOURCE CONTRIBUTIONS

- NextDoor: Headed an independent study on integrating Python constructs in C so as to fuse NextDoor with Deep Graph Learning modules.
- HackUMass IX: Co-built reusable HTML5, CSS (Bootstrap) components of the website with a team of 9.

LEADERSHIP ROLES: (1) Co-Founder at QuickNotes (2) Tech Chair at CICS COST