Inan Xu

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EDUCATION

University of California, Santa Cruz Jun 2023

Computer Science, Bachelor of Science. GPA: 3.88, graduated in 3 yrs.

Teaching Assistantships: Algorithms and Data Structures, Machine Learning, Systems and C Programming

EXPERIENCE

Software Developer Aug 2021 – Present

PathFinder Startup *Remote*

- Implemented automatic Less.js compilation to CSS on site deployment in Netlify and GitHub CI/CD pipeline, halving duplicate code in repository by removing the need for committing both LESS and CSS files.
- Developed detailed filters for searching posts, reducing user search times and increasing retention by utilizing functional React components and calls to backend RESTful API.
- Key developer among team maintaining live website with 3000+ unique users leveraging AI to improve career searching and planning, built with functional React components and MongoDB database.

Mobile App Developer Apr 2019 – Mar 2021

LMYA Sports Volleyball *Moraga, CA*

- Created in-app scheduling between coaches and trainees, resulting in significantly less scheduling overhead by connecting NativeScript app with RESTful API built in Google Apps Script.
- Constructed convenient payment system with in-person verification used by over 150 unique coaches in 3 months by implementing QR code exchanges with Google Firebase authorization.
- Re-designed and implemented app UI into a bottom navigation bar layout, decreasing user confusion by incorporating feedback from usability testing results.

Research Assistant Mar 2023 – Present

MISFIT Lab, U.C. Santa Cruz *Santa Cruz, CA*

- Optimized database calls in AWS Elastic Beanstalk from Django app by adding pagination, leading to 25% less AWS costs for the operation of a scalable image crowdsourcing platform for alternate text labeling.
- Improved deficiencies while capturing crowd object detection data by standardizing camera angle, height, and lighting, leading to increased recreation accuracy in simulator for training robots.

Research Intern Jun 2022 – Sep 2023

Inclusive Privacy Lab, University of Illinois, Urbana-Champaign *Remote*

- Co-authored paper accepted to top 1 human-computer interaction conference on the creation of a private object image dataset from blind photographers, ensuring good metrics via data labeling and cleaning techniques
- Developed a demo to blur private objects in uploaded images, proving significant interest for release in user studies by utilizing off-the-shelf computer vision models, Tensorflow, and Next.js.

PROJECTS

Mass YouTube Comment Downloader | *React, YouTube Data API, GitHub Actions*

- Developed a React webapp for downloading mass YouTube comments to CSV using the JS Fetch API.
- Asynchronous fast concurrent API requests while adhering to rate limits and token-based pagination.
- Efficient export to CSV with JSZip and includes checkpointing if API daily request limit exceeded.

Automatic Video Synchronization | *Python, FFmpeg, OpenCV*

- Efficiently syncs any given number of video files based on provided images, leveraging image classification and ffmpeg to quickly identify similar keyframes.
- Avoids training machine learning models, resulting in significant speedup by leveraging SIFT with parallelization to efficiently use all available CPU and GPU resources.

TECHNICAL SKILLS

Languages: JavaScript, Python, C/C++, Java, MySQL, PHP, HTML/CSS
Frameworks: React, Node.js, NativeScript, Flask, Django, MongoDB, TensorFlow, OpenCV, PyTorch, jQuery, FFmpeg
Tools: Git, AWS, Google Cloud, Docker, Visual Studio, Jest, Trello