Vibhu Kundeti

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Education

University of Pittsburgh August 2019 - December 2022
BS Computer Science *GPA: 3.69*
- Concentration in Computer Systems and Machine Learning

Thomas Jefferson High School for Science and Technology September 2015 - June 2019
Coursework: Data Structures, Intro to Systems Software, Operating Systems, Matrix/Linear Algebra Machine Learning, Probability Statistics, Discrete Structures, Computer Organization/Assembly
Achievements: Pitt Success Grant Recipient, Panther Pride Award, Dean's List, Grid Creator Hack

Skills

Programming Languages:	Java, Python, C, JavaScript, SQL, R, MATLAB
Frameworks and Tools:	Postman, OpenCV, Flask, Node.js Git
Concepts:	Object Oriented Programming, Database Management Systems, Machine Learning, Threading and Concurrency, REST API

Experience

Amazon Arlington, VA
Software Development Engineer Intern January 2021 - April 2021 (Current)
- IMDb TV's Personalization team

MicroStrategy Tysons Corner, VA
Software Engineer Intern May 2021 - August 2021
- Implemented existing client/developer workflows within Postman using MicroStrategy REST API
- Designed and created new workflows to satisfy user need that were built with CRUD commands introduced by latest MicroStrategy API version

UPITT School of Computing and Information Research Lab Pittsburgh, PA
Researcher January 2021 - May 2021
- Aimed to use hallucinated optical flow (predicted motion) to improve nuanced interpretation of advertisements
- Generated pixel level representations of predicted flow for Pitt's Image Ad dataset using a ConvNet
- Visualized these pixel level representations as flow vectors drawn on the original image for analysis

TJHSST Computer Systems Research Lab Alexandria, VA
Researcher August 2018 - May 2019
- Aimed to solve a jigsaw puzzle using a robotic arm and overhead camera
- Used OpenCV library to process an image of a scattered puzzle by generating contours, corner detection, adjusting for lens distortion, etc.
- Implemented SIFT algorithm for image matching to calculate the location of a given piece
- Created an instruction set to translate digital solution of puzzle to instructions for the robotic arm (uArm Pro)
- Full paper linked here: Link

Projects

Shared Calendar App *Languages: Python, Flask, Node.js, JavaScript, Firebase* August 2021 - December 2021
- Built a full-stack Python/Flask web app that is backed by Firebase Realtime Database and Authentication
- Developed features for users to invite other users to a shared calendar, where they can all add events.
- Built a recommender module that suggests a date to meet based on events added to the calendar.

House Hack *Languages: Python, React, Node.js, Angular.js, Solidity* March 2018
- Allows direct and secure sale of properties between individuals, without the need of a third party; used Solidity in order to write smart contracts, which are stored on a blockchain.
- Utilized Dwolla API to implement safe and secure transactions of USD between buyer and seller
- Built GUI components with Angular.js, in which users can navigate/pull info from the blockchain and buy/sell houses.

CashIn *Languages: Python, HTML, CSS* October 2017
- Web app allowing for user's to capture an image of a receipt of any purchase and distribute items to other friends on our platform.
- Trained OCR on a set of roughly 2000 receipts pulled from Google Images to detect patterns with identifying corresponding item names and prices.