Nirmal Balachundhar

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WORK EXPERIENCE

Drishti - Computer Vision To Improve Human Performance on Assembly Lines Software Engineering Intern

Palo Alto, CA

June 2019-Aug 2019

- Deployed customer experience portal using Python, VueJS, and SQL to manage camera movement for factory workers, which allowed remote control and reboot capabilities for operators
- Removed a single point of failure for customer data and reduced data access and modification times by 90%
- Integrated motion detection application to visualize camera movement, which helped increase the performance of Drishti's proprietary action recognition neural nets.
- Assessed stream quality and improved net accuracy by removing 15-20% of erroneous input data
- Refactored and reduced size of codebase by 50% increasing clarity of code to accelerate future development
- Wrote unit test coverage for frontend components using Jest and backend components using Python

Dealdock – A SaaS Platform To Automate Deal Flow Management for Private Equity Firms Co-Founder

Evanston, IL Jan 2019-Current

- Lead a team of four engineers, secured five pilot customers, and raised \$10,000 in funding.
 - Built and deployed natural language processor microservice on Heroku using Flask and Spacy to extract key data from unstructured business plans, saving business analysts large amounts of time.
 - Built customer app to track deal information and associated documents using Django and React, ensuring clean deal tracking and organized task management.

Innovative Advisory Group

Lexington, MA

Research Intern

June 2018-Aug 2018

- Built data visualization platform for financial models to forecast option performance on different ETFs
- Backtested options investment strategy which the firm has used to improve returns by 2% over the past year

PROJECTS

Lane Detector

- Developed a lane detection pipeline using CV2 and Numpy to detect straight-edged lanes
- Experimenting with various CNN methods to improve accuracy in varying conditions

Machine Learning For Public Health

- Predicted country health indexes with >80% accuracy using feed-forward neural networks and regressions
- Improved model accuracy by 3% via cross-validation and parameter tuning
- Isolated most important financial and health features for a public health system

EDUCATION

Northwestern University Class of 2021

B.A. Computer Science

- Algorithmic Network Inference
- Machine Learning
- Deep Learning
- Artificial Intelligence

- Computer Networking
- Graduate Algorithms
- Data Structures & Algorithms
- Discrete Math

- Real Analysis
- Linear Algebra
- Multivariable Calculus
- Online Markets
- Cryptography

HONORS, AWARDS, SCORES

Northwestern Dean's List: 7/8 Quarters

VentureCat Semifinalist: Awarded to most promising startups across the university

Interests/Extracurriculars: The Garage @ Northwestern, Brown Sugar A Cappella, Basketball, Football