Nirmal Balachundhar
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WORK EXPERIENCE

Drishti - *Computer Vision To Improve Human Performance on Assembly Lines* Palo Alto, CA
Software Engineering Intern 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* Evanston, IL
Co-Founder Jan 2019-Current

- Secured three beta-testers, confirmed market need, and conducted competitive/market analysis
- Building natural language processor to extract data using Flask, Django, and ReactJS from unstructured financial entities from business plans using proprietary machine learning algorithms
- Designing portfolio fit algorithm to improve deal returns and firm efficiency

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 **GPA: 3.65/4.0**
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: 5/6 Quarters
VentureCat Semifinalist: Awarded to most promising startups across the university
Interests/Extracurriculars: The Garage @ Northwestern, Brown Sugar A Cappella, Basketball, Football