Shiv Ansal

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Education

University of Massachusetts, Amherst CICS   Class of 2021 GPA: 3.6 (Dean's List)
Major: B.S. Computer Science, Intended Theory/Computation Concentration; Math Minor
Coursework: Discrete Mathematics, Introduction to C/Lower Level, Differential Equations
Past Coursework: Data Structures, Linear Algebra, Intro to C, Calculus, Physics, Biology

Professional Experience

Research Software Engineer   Februrary 2019 - Current
Hydrosystems Research Group | Amherst, MA
- Working in a small team to develop a full-stack enterprise application involving water filtration in third world countries. Building out mobile and web platforms using technologies such as Django and Swift and gaining exposure to software architecture and design principles
- Working in a Python and MatLab programming environment to refactor older algorithms to increase computation efficiency.

Software Engineering Intern   Summer 2017 – January 2018
Unshackled Ventures | Palo Alto, CA
- Worked with a small team to develop multiple full-stack web projects for internal company purposes.
- Implemented technologies such as Django, MySQL, and AWS to set up web platforms
- Implemented graph algorithms to refine specialized employee search for start-up size companies.
- Implemented machine learning algorithms to decipher skill trends within employees within certain industries.
- Learned the concepts of graph theory and supervised learning while more broadly understanding the basics of machine learning models.

Research Intern   June 2017 – August 2017
Stanford Wall Lab (Autism Glass Project) | Stanford, CA
- Worked on implementing various algorithms to analyze patient data and changing behaviors in autistic children undergoing therapy. Trained multiple machine learning models using sckit-learn to breakdown therapy data and to discover trends amongst patients.
- Worked in a Python programming environment and familiarized myself with Unix and AWS EC2.
- Developed my knowledge on the mathematical and statistical fundamentals behind machine learning models
- Team Project Published on Nature Research Journal: "Exploratory study examining the at-home feasibility of a wearable tool for social-affective learning in children with autism"

Projects

- Peloton: Winner of CUHacks3; An application focused on increasing bicyclist safety be learning dangerous routings and crash prone areas
- LunchBox: API Winner at AngelHacks SV17; A food recommender application that uses artificial intelligence to discover one's easting tendencies
- 8-Class Emotion Recognition in Children; Train and developed different models to interpret and analyze facial expressions in order to recognize emotion patterns. Presented at Synopsys Science Fair 2017.
- SafeBlock; An application that censors cyberbullying on YouTube comments and videos

Skills

Languages: (Proficient) Java, Python, Javascript, C, HTML/CSS (Developing) C++, Swift, Node.js, React.js
Technologies: Pandas, Sklearn, Keras, Tensorflow, Matplotlib, Seaborn, OpenCV, SciPy, Flask, Django, Firebase, MongoDB, MySQL, JSON, Unix, Git

Extracurriculars

Web Managing Editor   December 2018 – Current
Daily Collegian| Amherst, MA
- Responsible for maintaining newspaper website operations and ensuring site reliabitlity.
- Utilizing web languages to develop additional features for website based on SNOsites.
- Leading engineering team to bring newspaper to mobile platforms in a cost-efficient way.