Navin Ranganathan

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EDUCATION

Computer Engineering - Bachelor of Science - 2024
University of Illinois at Urbana-Champaign - Champaign, IL

- Cumulative GPA: 3.70/4.00
- Minor in Mathematics
- Relevant Coursework: Artificial Intelligence, Applied Machine Learning, Computer Systems Engineering, Data Structures, Database Systems, Probability in Engineering Applications, Linear Algebra, Numerical Analysis, Analog Signal Processing, Technology Entrepreneurship

WORK HISTORY

Solutions Analyst Intern - June, 2022 to August, 2022
Altana AI - Brooklyn, NY

- Automated Value Chain process for around 60 Federal clients with Python notebooks and libraries, including Pandas and Spark, in Databricks
- Utilized MLOps and various queries to down-select the company's supply chain data in resolving over 500 unknown entities within the database
- Consulted with Research & Analysis team for a corporate-wide presentation on real-world use cases and significance of the company's products
- Collaborated closely with upper management, including CEO, to develop a company analysis profile in order to separate from competitors

Industry 4.0 Intern - May, 2021 to August, 2021
Saint-Gobain Performance Plastics - Wayne, NJ

- Deployed a web application for digitalized Uniform/Vacation Request forms onto TV screens for over 60 plant operators using company APIs
- Streamlined the process of delivering New Job Reports into production by roughly 20% through an optimized workflow utilizing Excel VBA
- Implemented several modifications, including a cloning feature, to existing Job Opportunity documents within Salesforce for Applications team
- Updated capacity analysis process for more readable data, including calculations of capacity loads, monthly quantities and utilization percentages

Coach/Counselor - October, 2016 to July, 2019
Jr Laker Basketball Program & Mountain Lakes Basketball Summer Camp - Mountain Lakes, NJ

- Supervised children ages 7-14 in recreational basketball leagues and basketball summer camps, teaching basic basketball fundamentals
- Offered guidance and advice on and off the court to help my children develop into better players and, more importantly, better people

PROJECT HIGHLIGHTS

391 OS - October, 2022 to December, 2022

- Worked alongside three other students in developing a Linux-style operating system with paging, file systems, and task scheduling implemented
- Wrote several C and inline assembly functions to handle executing and halting tasks, as well as initializing RTC and PIC devices for our system

Snake Game - November, 2022 to December, 2022

- Programmed a simple version of Snake by using reinforcement learning and training an AI agent to reach the rewards as many times as possible
- Implemented with Pygame and NumPy in Python, and a Markov Decision Process for updating Q-tables to find the optimal moves for our snake

Baristau Bot - November, 2021 to December, 2021

- Designed a digital chatbot for our software implementation of an automated drink-serving robot to be presented at Engineering Open House
- Aided in designing manager authentication, visual display for our customers, menu/ingredient components, users table, and form for tab details

CAMPUS INVOLVEMENTS

Active Member for Kappa Theta Tau Professional Engineering Fraternity
Project Developer for Illinois Data Science Club
Student Leader for Engineering Ambassadors

SKILLS

- **Computer Languages:** Java, JavaScript, Node.js, C/C++/C#, Python, SQL, HTML/CSS, x86
- **Softwares/Libraries:** Microsoft Suite, Git, Databricks, MLflow, Pandas, PyTorch, TensorFlow