SHATAYU KULKARNI

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EDUCATION

PURDUE UNIVERSITY

Computer Science (Honors)

proj. May 2022 West Lafayette, IN

GPA: 3.97 / 4.00
Minor in Mathematics

Selected Coursework

- CS 373 Data Mining and Machine Learning
- CS 251 Data Structures and Algorithms
- CS 250 Computer Architecture
- CS 240 C Programming
- CS 182 Foundations of Programming
- CS 390 Competitive Programming

Done in C, C++, Java, Python

EXPERIENCE

Software Engineering Intern, Viasat Inc.

Sept. 2019 - present, West Lafayette, IN

- Developing a machine learning algorithm that analyzes satellite Wi-Fi data to optimize in-flight Wi-Fi
- Programming a UI for the framework that allows users to schedule tasks, explore anomalies, and view metrics on algorithm performance and resource consumption

Using Python, JavaScript, and HTML/CSS

Undergraduate Researcher, Purdue University

Jan. 2019 - present, West Lafayette, IN

- Developing reinforcement learning algorithm to study how having information on peers impacts strategies in a collective action game
- Developed a game involving over 100 students and Amazon MTurk workers to study a collective action problem
- Created 3 variations of the game, each with different charts, to analyze how those charts influenced people's cooperativeness
- Programmed over 10 simulations and optimizations to ensure external factors do not impact the study

Using Python, D3.js, JavaScript, and HTML/CSS

Software Developer, Fireflies.ai

Feb. 2018 - Mar. 2019, San Francisco, CA

- Created a Chrome extension that increased CRM filling rates by 200% by using natural language processing
- Programmed an internal email assistant that used machine learning to generate a to-do list from the user's email

Used React, Node.js, JavaScript, and HTML/CSS

Team Captain, DVHS Robotics

May 2017 - May 2018, San Ramon, CA

- Led VEX Robotics team of 12 high schoolers to 1 championship and 2 more finals appearances in 7-tournament season
- Raised average Skills ranking from 10th place to 5th by using internal analytics and optimizations to craft optimal strategies

Used RobotC and MATLAB

AWARDS

- **Best Designed Product**, HarkerHacks 2018
  Awarded for Atium (see projects)
- **2nd place**, CA State Championship 2018
- **1st place**, Vanden Robotics Tournament 2017
- **2nd place**, Dougherty Valley Tournament 2017
- **2nd place**, Google VEX Tournament 2017
- **2nd place**, Tracy Triangle 2017

SKILLS

Languages/Frameworks

HTML · CSS · JavaScript (including Node.js and React) · Python (including TensorFlow, BeautifulSoup, scikit-learn) · R · MATLAB · C · C++ · Java

Tools

Linux, Git, Photoshop

PROJECTS

Atium

- **Best Designed Product, HarkerHacks 2018**
- Research-assisting Chrome extension that analyzes the website the user is on to suggest sites to continue research on
- Compiles summaries and citations of sites visited during the research session

Made with JavaScript, Node.js, and HTML/CSS

VEX Robotics Spacing Calculator

- Employed dynamic programming to minimize how many spacers were used to fill a gap
- Improved stability in robots by ensuring gaps were filled accurately
- Increased savings by improving the accuracy of projected resources needed to build the robot

Made with JavaScript and HTML/CSS

FoodByte

- Used natural language to generate recipes adhering to conditions like a calorie max, limited ingredients, or dietary restrictions
- Generated meal plans to meet a user's target calorie intake while adhering to their dietary restrictions
- Recommended similar dishes to a currently viewed recipe

Made with React and HTML/CSS