

# SHATAYU KULKARNI

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## EDUCATION

### PURDUE UNIVERSITY

#### Computer Science (Honors)

📅 proj. May 2022

📍 West Lafayette, IN

GPA: 3.92 / 4.00

Minor in Mathematics

#### Selected Coursework

- CS 381 Analysis of Algorithms
  - CS 373 Data Mining and Machine Learning
  - CS 252 Systems Programming
  - CS 251 Data Structures and Algorithms
  - CS 250 Computer Architecture
  - CS 390 Competitive Programming
- Done in Assembly, C, C++, Java, Python*

## EXPERIENCE

### Data Science 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 Engineering Intern, 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*