# Shaswat Shukla

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#### **EDUCATION**

University of New Mexico | Bachelor of Science in Computer Science

Expected Dec. 2022

- GPA: 3.98/4.0
- Minor in Mathematics

#### **EXPERIENCE**

### Research Intern (part of NASA ULI Program)

Aug. 2022 - Aug. 2022

Stanford University | Palo Alto, CA

- Project "Vision Based Navigation in TurtleBots"
- Recorded 10000 images from TurtleBot cameras using Rosbag at 5 frames/sec to train it to detect static obstacles
- Collaborated in a team of 3 to create a Convolutional Neural Network (CNN) model with an accuracy of 80%
- Technologies used: Python, TensorFlow, Keras, ROS, Linux

Summer Intern May 2022 - July 2022

Purdue University | West Lafayette, IN

- Project "Form + Function 4-D Printing"
- Created CAD model of an IoT based "smart" bicycle crank using Autodesk Fusion 360
- Externally **embedded** electrical components in bicycle crank for functionality using pick and place method
- **Developed** a single page application (**SPA**) to display the resistance change in the bicycle crank using **HTML**, **CSS** and Vanilla **JavaScript**

### **Computer Consultant**

Aug. 2021 - Dec. 2021

University of New Mexico | Albuquerque, NM

- Responded to intermediate to complex PC software problems in accordance with service level requirement
- Performed computer hardware diagnostic, troubleshooting operating systems and internet connection issues
- Assisted and trained students and faculty on how to run wide variety of software on Windows and Mac computing
  environments

Summer Intern May 2021 - July 2021

Purdue University | West Lafayette, IN

- Project- "Algorithms for Resilient Coordination and Situational Awareness in Swarm Robotics"
- Wrote Python scripts for simulating various task allocation algorithms used for assigning tasks to robots
- Used **NetworkX**, **NumPy**, **SciPy** and **MatplotLib** packages in Python to create and visualize coordination in networks of robots in a simulated environment
- Created a Python simulation to analyze and plot the time taken by the robots to agree on tasks using consensus algorithms in a discrete time model

## **SKILLS**

Strong - HTML, CSS, JavaScript

Proficient - Python, Java

Database/Frameworks/Preprocessors - React, Node.js, MySQL, SASS, Bootstrap, Materialize CSS, Tailwind CSS

Technologies - Git, VS Code, AWS, Netlify, Vercel