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

Front End Developer Intern — Sept. 2022 - Present

Second Judicial District Attorney's Office | Albuquerque, NM

- **Developing** a **web application** to streamline and digitalize the procurement and requisition process of paper forms
- **Creating** a dashboard to allow the user to access all the required documents in one workspace
- Technologies used: **React, Bootswatch, PostgreSQL**

Research Intern — 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 fps** to train the robot to detect static obstacles
- **Collaborated** in a team of **3** to create and deploy 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**

Summer Intern — May 2021 - July 2021

Purdue University | West Lafayette, IN

- Project – Algorithms for Coordination and Situational Awareness in Swarms
- 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

TECHNICAL SKILLS

Programming – HTML, CSS, JavaScript, Python, Java

Frameworks/Libraries – React, Node.js, Flask, Material UI, Sass, Bootstrap, Materialize CSS

Developer Tools/Technologies – Git, VS Code, AWS, Vercel