

# Rohan Prasad

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## EDUCATION

### University of Illinois at Urbana-Champaign

*Bachelor of Science in Computer Engineering — GPA: 3.71/4.00*

Champaign, IL

*Expected May 2022*

## SKILLS

**Languages:** Java, Python, C/C++, JavaScript, TypeScript

**Frameworks:** Node.js, React.js, Jekyll, RabbitMQ

**Developer Tools:** Git, Postman, MongoDB, Heroku, CircleCI

**Libraries:** ROS, Puppeteer, OpenCV

## EXPERIENCE

### Capital One

*Incoming Software Engineering Intern*

June 2021 – Aug 2021

New York, NY

- Card and Commercial Platform Development.

### Intelligent Motion Laboratory

*Undergraduate Research Assistant*

Oct 2019 – Present

Urbana, IL

- Developing TRINA 2.0, the teleoperated robotic intelligent nursing assistant, designing and implementing a central controller and API to actuate components of the robot while handling various controller loops and effective cross-platform communication.
- Designing and implementing models to generate grasp angles from millions of point cloud mesh and fused point cloud images in order to facilitate a computer vision pipeline.
- Implementing **ROS, Python, and C algorithms** for motion planning & control with Fetch robotics freight machines and UR5 robotic arms.
- Guided under Professor Kris Hauser.

### Woven Money

*Software Engineering Intern*

May 2020 – Aug 2020

Seattle, WA

- Developed financial technology SaaS product (MVP) on an early-stage startup team, used by over **300** customers in the alpha release.
- Wrote automation scripts to facilitate financial actions on a user's behalf, such as requesting a balance transfer or aggregating credit card information for over **15 financial institutions**.
- Used RabbitMQ to enable background job facilitation in mobile-web and react native application.
- Designed an algorithm to evaluate balance transfers between banks based on a user's finances.

## PROJECTS

### Spotify Jukebox | *Spotify API, JavaScript, Express, Puppeteer, Heroku*

Aug 2020 – Present

- Built a web application using React.js, Node.js, Express, and Puppeteer to enable song queuing to a central player from any device through the Spotify API. Built and hosted on Heroku.
- Automated Spotify's token authentication using headless browser.

### 3-D 6-DOF Grasp Generation | *ROS, PCL, C++, Python, OpenCV, OMPL*

Jan 2020 – Present

- Designed and implemented computer vision pipeline to facilitate object grasp detection and motion planning on a low latency API to facilitate UR5 robotic arms.
- Developed python API to enable TCP/IP communication between various micro-controllers and subsystems to enable object grasp pipeline.
- Implemented low-latency point-cloud processing for real-time table-top segmentation and grasp generation.

### MODIS Cloud Segmentation | *Python, pandas* | Nvidia NCSA AI Hackathon – **Won Event (1/17)** March 2020

- Explored the usage of machine learning methods on identifying instances of clouds (pixel level) on Satellite images from the MODIS satellite cluster.