

# Rohan Prasad

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## EDUCATION

### University of Illinois at Urbana-Champaign

Champaign, IL

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

*Expected May 2023*

- **Concentrations:** Computer Architecture, Robotics, Parallel Programming
- **Selected Coursework:** Applied Parallel Programming (CS 483), Data Structures & Algorithms (CS 225), Computer Systems & Programming (ECE 220), Analog Signal Processing (ECE 210)

## EXPERIENCE

### Squarespace

New York, NY

*Incoming Software Engineering Intern*

*Present*

- Incoming Summer 2021 Software Engineering Intern

### Capital One

Champaign, IL

*Incoming Software Engineering Intern*

*Present*

- Incoming Spring 2021 Software Engineering Intern

### Woven Money

Seattle, WA

*Software Engineering Intern*

*May 2020 – Aug 2020*

- Developed financial technology SaaS product (MVP) on an early-stage startup team, used by over **300** customers in the alpha release.
- Wrote automation scripts in **Typescript** and **Javascript**, with **Puppeteer** 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 service-oriented architecture in mobile-web and react native application.
- Designed an algorithm to evaluate balance transfers between banks based on a user's finances.

## RESEARCH

### Intelligent Motion Laboratory

Urbana, IL

*Undergraduate Research Assistant*

*Oct 2019 – Present*

- 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.
- Implementing **ROS, Python, and C++ algorithms** for motion planning & control with Fetch robotics freight machines and UR5 robotic arms.
- Guided under Professor Kris Hauser.

## SKILLS

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

**Technologies:** CUDA, Node.js, React.js, Jekyll, RabbitMQ, ROS, OMPL, Puppeteer, OpenCV

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

## PROJECTS

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

Jan 2020 – Present

- 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.

### Image Histogramming Equalization | C, C++, CUDA

Oct 2020 – Nov 2020

- Parallelized histogram equalization computation of input image using **C++ and CUDA**.
- Implemented **Cumulative Distribution Function** of image histogram and **increased throughput by 220%** through kernel fusion.

### Spotify Jukebox | Spotify API, Node.js, React.js, Express, Heroku

Aug 2020

- 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**.

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

Mar 2020

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