



## Samridhi Shrestha

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**U.S. Citizen | Clearance: Secret**

### EDUCATION

**University of Colorado Boulder** | Boulder, CO | Bachelor of Engineering | Expected December 2023

Major in Computer Science & Engineering Management

GPA: 3.86/4.0

Dean's List | Colorado Boettcher Semifinalist | CU Boulder Esteemed Scholar | BOLD Scholar

Relevant Coursework: Artificial Intelligence, Software Design, Algorithms, Machine Learning, Cybersecurity, Data Structures, Data Science, UI/UX

### TECHNICAL SKILLS

- **Programming Languages:** Java | Python | C | C++ | C# | Javascript | HTML5 | CSS | Swift | Scala | Assembly | .NET | Angular | ReactJS | Ruby
- **Software Tools:** Kubernetes | GIT | Linux | Unix | DJANGO | Docker | NodeJS | Fortify | GitLab | MongoDB | MySQL | PostgreSQL | Figma
- **General:** AGILE | AWS | Product Management | CI/CD Pipeline Management | GCP | Embedded Software Engineering | Arduino

### PROFESSIONAL EXPERIENCE

**NASA: Jet Propulsion Laboratory** | **Student Software Engineer CO-OP** - Boulder, CO | September 2023 - Present

- Lead the design as project manager of autonomous navigation software team for Mars rovers, leveraging Digital Elevation Models (DEMs) for dynamic pathfinding on Martian terrain
- Implemented a dual navigation strategy: Exploration-based adaptive rerouting for unknown terrains and optimal routing for known terrains, complemented by visualization tools and route metrics

**University of Colorado Boulder** | **Course Assistant** - Boulder, CO | August 2023 - Present

- Assisted teaching team for CSCI 2400 - Computer Systems by offering office hours, course planning input, and helping students with course work during recitations

**Charles Schwab** | **Software Engineering Intern** - Austin, TX | June 2023 - August 2023

- Modernized internal daily change awareness display hub for advisor services team and streamlined information intake process using CI/CD software pipeline
- Implemented automated calendar system displaying all company wide deadlines using Figma for wireframing and ReactJS /.NET for full-stack development
- Optimized internal tool used on Charles Schwab Google Cloud Platform pipeline component now utilized by over 100+ software engineers

**Ball Aerospace** | **Software Security & Development Engineering Intern & CO-OP Engineer** - Boulder, CO | June 2022 - June 2023

- Designed a decision tree graph algorithm that eliminates the complexity of selecting the optimal coding language for a new project with a focus on security
- Conducted trade study on automated pipeline metrics and user requirements within the new Ball Aerospace CI/CD software pipeline
- Developed survey regarding metric collection system methods and played an integral role as a point of communication amongst cross-functional teams

**Medtronic** | **Software Engineering Intern** - Gunbarrel, CO | June 2021 - August 2021

- Designed a Python script that automates the creation of a code review using regex and complex data structures to increase efficiency by 25%
- Conducted integration testing on FT10 generator unit by creating and utilizing Performance Profiler Tests written in Java, used for testing 100+ units
- Presented research on effective AGILE development techniques to the ASI systems team to optimize the performance of a team of 50+ systems engineers

**Medtronic** | **WISE R&D Engineering Intern** - Gunbarrel, CO | June 2020 - August 2020

- Conducted and analyzed capability analysis, normality tests, and ANOVA tests for Hook 9 vessel sealing device statistics
- Designed test for measuring jaw torque throughout varying jaw apertures for 5mm Ligasure surgical product that serves as vessel sealer & divider
- Initiated research prospect on automated DFMEA software testing option now utilized by over 40+ software engineers

### ENGINEERING PROJECTS

**Niiche** | **2023 - Social Media App Startup** | CEO & Founder

- Designing an algorithm for a social media app, grouping users based on 100+ niches for easier connections.
- Orchestrating startup operations at the seed stage and collaborating with potential investors to create plans to launch a new media platform.

### LEADERSHIP EXPERIENCE

**GOCODE** | **President & Founder** - Boulder, CO | February 2022 - Present

- Advocated for a major learning initiative to teach non-engineering students the basic principles of HTML/CSS and Javascript development
- Managed organization of lesson planning, promotion of student involvement, and formal registration procedures for a group of 30+ students