

# MATT STOKES - Vancouver, BC Canada

Passionate about **purpose-driven** deep-tech development.  
Main areas of research and exploration are problem-focused **robotics** and aerospace.

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## EXPERIENCE

### Next Decentrum Technologies Inc. - Vancouver, BC

#### Frontend/Web3 Developer

Contract - 5 months (Sept. 2022 - Jan. 2022)

- Part of a 3-developer team tasked with **releasing** a SASS platform in **4 Months**.
- Worked with the CTO to break down the entire concept product into a **flow chart**, then **individual ticketed tasks** (with technical breakdown and **sudo-code**).
- **Architected** and **developed** SASS's entire **sign-up** and **login** process as well as individual account dynamic content retrieval system from the blockchain. Used **Javascript**-based frameworks, including **Next.js** and **Typescript**; styling through vanilla **CSS** and TailwindCSS, and **Cadence** for interacting with the Flow Blockchain (**learned** and became **proficient** within **two weeks**).

### X: The Moonshot Company - Mountain View, California

#### Intern/Student

Sponsored Educational Experience - 3 months (Summer 2022)

- Selected out of a pool of international applicants to participate in **3-months** of programming provided by **GoogleX**, culminating in a 2-week internship-style program on the **X campus**.
- Worked on the **Rapid Evaluation team** performing problem/solution analysis and engaging in rapid **R&D** in X's in-house **fabrication facility**. Ending the process with a V1 **physical product**.

## TECHNICAL PROJECTS

- **Patch - Transdermal Hollow Body Microneedle Arrays for MDR Bacterial Infections**
  - ◆ Raised **\$5k** in research **funding**
  - ◆ **Technical lead**, chief fundraiser and presenter for a small team of student researchers.
  - ◆ Developed a novel approach to **medicinal drug administration** utilizing **3D-printed** hollow-body **transdermal microneedle arrays** and pressurized drug packets.
  - ◆ I designed **six iterations** of the microneedle arrays (**Fusion 360**) using principles derived from independent research into microfluidics as well as an **interchangeable drug-packet** and **dispensing** system that was capable of dispensing entire packets of liquid at a **constant** and **predictable rate**.
- **Transradial Prosthetic Arm**
  - ◆ Raised over **\$1k** in research funding
  - ◆ **Five years** of **experience** developing prosthetic arms, projects in order of completion include Elbow Actuated-non-powered prosthetic for children 9-13yrs; **ECG**, Powered Prosthetic less than \$250; and **11-DOF** Myo-Electric Prosthetic.
  - ◆ Technologies include **Solidworks**, Fusion 360, **C++**, Python, **ROS2**, Arduino, Raspberry Pi, **3d Printing**.

## EDUCATION

### Honours Bachelors of Mechatronics Engineering

University of Waterloo, ON

2023-2028

Relevant Courses:

- MTE 121 (**C++**, **RobotC**, **ROS2**), MTE100 (**Solidworks**, Autocad, Drafting)

### Alumni - prev. Innovate, Accelerate The Knowledge Society

Relevant Projects:

- IKEA student consulting challenge, CAE student consulting challenge.

## STUDENT DESIGN TEAMS

### Waterloo Aerial Robotics Group

University of Waterloo Design Team

- Mechanical Sub-Team
- Used Solidworks to design a drone GoPro mount as skill-proof to join the WARG team.

## SKILLS

### Technical Software

- CAD: Fusion 360, **Solidworks**, Autocad
- Programming: **C++**, Typescript, **Javascript** (Next.js, React.js), vanilla CSS, **ROS2**, CMake
- Version Control: **git** + Github

### Hardware and Techniques

- 3D Printing (DLP, SLA, FDM)
- Soldering
- Technical Freehand Drafting

### Communication

- Technical Report Writing
- Experienced leader
- **Articles**
- Languages: English (Fluent), French (written)

## OTHER LINKS

- [Hobby 3D Printing Account](#)
- [Twitter](#)