

# Natalie Paulson

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## QUALIFICATIONS SUMMARY

Self-motivated student seeking experience in computational research and/or program development. Currently pursuing a four-year degree spanning a broad spectrum of STEM related disciplines. Strong background in pre-med studies (biology and chemistry) with a recent shift in focus towards computer related sciences. Goal is to gain experience in both biological and computer sciences in hopes of attending a graduate bioinformatics program.

- **Research & Technical Proficiencies:** Proficient in cell culture, immunofluorescence and immunohistochemistry staining, cell imaging, cell quantification and other standard lab tasks. Capable of caring for small rodents including basic health evaluations, performing necropsies, anesthesia, and intraperitoneal drug administration. Fluent in computing languages C/C++ and Java. Proficient in Python, RStudio, HTML5, and CSS.
- **Leadership Skills:** Trained three undergrads within the Provenzano lab to culture cells, stain tumor samples (IF and IHC), quantify/organize data, and all other tasks needed to support Dr. Salzwedel's experiments. Run, organize, and promote biweekly workshops for the Days for Girls chapter on campus.
- **Service Skills:** Years of experience in various customer service positions. Consults students of all degree levels in faculty sponsored research and research strategies for projects and papers. .

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## EDUCATION

### **B.A., Computer Science** (Anticipated May 2022)

College of Liberal Arts, University of Minnesota, Twin Cities

**Biology:** BIOL 1009 General Biology: A

**Chemistry:** CHEM 1061 Chemical Principles I with lab: A-  
CHEM 1062 Chemical Principles II with lab: A

**Statistics:** STAT 3021 Introduction to Probability and Statistics: IP  
BIOL 3272 Biostatistics: planned spring 2021

**Computer Science:**

CSCI 1113 Introduction to C/C++: S

CSCI 2011 Discrete Structures: IP

CSCI 1913 Algorithms and Program Development: IP

CSCI 2033 Elementary Computational Linear Algebra: planned spring 2021

CSCI 4041 Algorithms and Data Structures: planned spring 2021

## RESEARCH EXPERIENCE

PROVENZANO LABORATORY UNIVERSITY OF MINNESOTA

**Undergraduate Researcher** (Jan 2019 - Dec 2020)

Assisted post-doctorate Amanda Salzwedel with experiments involving various stroma-targeted immunotherapies for pancreatic cancer treatment in KPC mice models.

- Stained, imaged, and evaluated the histology of tumor samples
- Performed necropsies on mice and harvested tumors.
- Administered therapeutic treatments to mice as directed by Dr. Salzwedel.

UMN LIBRARIES, UNIVERSITY OF MINNESOTA

**Peer Research Consultant** (Aug 2020 - Present)

Connect students with research faculty on campus and facilitate undergraduate research opportunities; Assist students in locating and utilizing university library resources.

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## COMMUNITY OUTREACH AND LEADERSHIP

DAYS FOR GIRLS© UNIVERSITY OF MINNESOTA CHAPTER

**Co-founder and President** (Sep 2019 - Present)

Established a chapter on campus for the volunteer-run organization Days for Girls© that creates and distributes safe, lasting, and sustainably innovative menstrual solutions to women in disadvantaged communities worldwide. Aims to increase access to menstrual care and education to empower women.

- Conduct sewing workshops and ensure materials and funds are available.
  - Promote our program to university students.
  - Communicate with donors, club members and supervisors
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## PROFESSIONAL EXPERIENCE

A.R.I.E.S.

**Chief Design Officer** (June 2020 - Present)

Assisted in the startup of A.R.I.E.S. (Automated Research Imaging and Editing Software), a software designed to automate the cell quantification process and provide an intuitive user interface to users for basic editing protocols. Proficient in Adobe Photoshop, Adobe XD, HTML5, CSS.

- Lead and executed all graphic design needs of the start-up including user-interface design and prototyping, website design, and other visual and media-based needs;
- Communicated with CTO and CEO regarding user-workflow requirements.

#### SIGMA BEAUTY

**Beauty Sales Associate** (Nov 2019 - June 2020), **Product Representative** (by contract)

Engaged with customers to upsell merchandise, maintained sales floors, demo products for customers and provide makeovers. Promote Sigma Beauty products on behalf of company social media advertising.

#### VOYAGE HEALTHCARE

**OB/GYN Medical Scribe** (May 2019 - Aug 2019)

Charted patient history, physical examinations, and procedures as dictated by physician. Ordered blood work and labs as needed.

#### MINNETONKA TENNIS CLUB

**Desk Receptionist** (May 2016 - Aug 2018)

Responded to phone calls, emails, and walk-in inquiries. Resolved service complaints, managed inventory, upsold memberships. Scheduled clients for tennis drills and other club events.