

# Carissa Patton

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## Education

### Bachelor of Science in Computer Engineering | Expected May 2023

- University of Arkansas, Fayetteville
- Minor: Mathematics
- 108 Hours Completed
- Full Time Enrollment
- Member of Honors College
- Cumulative GPA: 4.0
- Senior

## Educational Career Goals

At the conclusion of my Honors undergraduate studies, I expect to have gained a rigorous and comprehensive understanding of computer hardware and how to tangibly interact with it, and to have acquired a robust knowledge of programming and software to best exploit hardware capabilities. I would like to utilize this knowledge to pursue a graduate law degree in intellectual property law.

## Skills and Abilities

- Proficient using Arduino, sensors, and FPGA hardware boards
- Effective time management
- Self-starter
- Perform well under pressure
- Coding proficiency in software and hardware languages: C++, C#, C, Java, Javascript, Python, Vue, Verilog

## Honors and Recognition

- Kenneth R. Holley Memorial Scholarship | Aug 2022 – May 2023
- University of Arkansas Academic Scholarship | Aug 2022 – May 2023
- Charles D. Brock Endowed Scholarship in Engineering | Aug 2020 - May 2023
- University of Arkansas Honors College Research Grant Recipient | Jan 2022 – Dec 2022
- Phillips 66 Scholarship in Computer Science Computer Engineering | Aug 2021 – May 2022
- College of Engineering Honors Program Member | June 2019 – present
- Chancellor's List, University of Arkansas | Dec 2019, May 2020, Dec 2020, May 2021, Dec 2021, May 2022
- Dean's List, University of Arkansas | Dec 2019, May 2020, Dec 2020, May 2021, Dec 2021, May 2022
- Women's Collegiate Gymnastics Association Academic All-American | Dec 2019- May 2020
- GPA Award for Academic Excellence, Arkansas Razorback Gymnastics | May 2020

## Scholarly Activities

- **Computer Engineering Research Project under Dr. Alexander Nelson | Sept 2021 – present**
  - Researching the use of capacitive sensors and Velostat in a wearable tool belt to create a kinematic model of the lumbar spine region to reduce repetitive stress injuries
  - Earned Honors Research Grant to pursue this project
- **Wearables and Ubiquitous Computing Arduino Project | Feb 2022 – May 2022**
  - Working in team of 3 to calculate the angle between two accelerometers moving in a way similar to the joint of a knee
  - Meshed data from both sensors to calculate angle with accuracy
- **Functional Microcontroller | Oct 2021 – Dec 2021**
  - Utilized Verilog to code a microcontroller with various finite state machines
- **Chemical Engineering Research Project under Dr. Jamie Hestekin | Sept 2020 – May 2021**
  - Researching ion selectivity working towards artificial kidney development
  - Working in laboratory and conducting literature search to further develop ideas for improving ion selectivity
  - Tasked to aid in coding the “computer” for the artificial kidney device
  - Worked under a mentor to help guide the research
- **University Physics I Honors Project | Dec 2019**
  - Researched energy dissipation during physical activity
  - Meshed athletics and academics

## Work Experience

- **Phillips 66 Information Technology Intern | May 2022 – Aug 2022**
  - Launched, utilized, and taught a VMware tool to map and analyze application dependencies
  - Spearheaded around \$250,000 in annual cost savings and laid groundwork for much more savings
  - Collaborated with vendors, application owners, software experts
  - Networked with employees in every area of IT within Phillips 66
  - Team leader of a team of 4 to create a presentation over the company value chain, scheduling meetings and coordinating times to work on the presentation
  - Selected out of 16 interns to present my final individual presentation to our SVP, Chief Digital and Admin Officer
  - Worked out of corporate office in Bartlesville, OK
- **University of Arkansas Athletics IT Student Support | Jan 2022 – present**
  - Attend athletic events to ensure necessary technology was working for the events/games
  - Troubleshoot and address any issues that arise during events
  - Assist in Student Athlete Computer Lab with technical support
  - Working out of Fayetteville, AR
- **ArcBest Technologies Intern | May 2021 – Aug 2021**
  - Worked with team of 3 to develop a new web application frontend and backend for the company's internal use
  - Furthered knowledge of software development which aids in academic programming classes
  - Worked out of Fort Smith, AR
- **Associates Physical Therapy | May 2019 – Aug 2019**
  - Designed promotional literature for the clinic
  - Modernized website appearance to create a more user-friendly webspace

## Leadership Experience and Extracurricular Activities

- **Member of the University of Arkansas Pre-Law Society | Aug 2022 - present**
- **Involved with Society of Hispanic Professional Engineers | March 2022 – present**
- **Delegate to Texas State Political Convention | June 2022**
  - Present and voted at Senate District Convention in May 2022
  - Selected to be and participated as a voting delegate at State Convention
- **Involved with American Indian Science and Engineering Society | Aug 2022 – present**
- **Member of JBHunt Sponsored UARK CSCE Hackathon | April 2022**
  - Worked in team of 4 to produce a project in 24 hours that fit the theme “Prank”
  - Produced an application that was present over existing browsers
  - Application could be activated by various keys or text to do different “prank” activities
  - Won 4<sup>th</sup> place overall
- **Member of JBHunt Sponsored UARK CSCE Hackathon | Nov 2021**
  - Worked in team of 5 to produce a project in 24 hours with the theme “Health and Safety”
  - Produced a front-end application to display machine learning algorithm information
  - Won 6<sup>th</sup> place overall
- **Phi Sigma Rho Honor Society Member | Jan 2020 – Dec 2021**
  - Merchandise committee, responsible for design and sale of merchandise
  - Recruitment committee, responsible for planning and coordinating recruitment events for potential new members
- **Cross Church College Dream Team | Aug 2020 – Dec 2021**
  - Team Lead for Hospitality, in charge of 8 people weekly, 5 hours per week
  - Team Member for Hospitality, 3 hours per week
- **Arkansas Razorback Gymnastics Team Member | Aug 2019 – Aug 2020**
  - Practice and associated weight training, 20 hours per week