HANNAH R. MARSH

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Experience

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| --- | --- |
| Kratos Defense and Security Solutions | San Diego, CA  Software Engineer Intern  *05/2023 - 08/2023* | * **Role:** Conceptualized, designed, and developed a website for integrating interactive Platform-Focused User Interface elements, boosting user interaction metrics by over 15%. * **Outcome:** Orchestrated and executed a detailed demonstration of the project's impact to senior executives, receiving critical acclaim and an offer for a full-time Software Engineer position based on proven capabilities (declined to pursue PhD). |

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| Kratos Defense and Security Solutions | San Diego, CA  Software Engineer Intern  *05/2022 - 08/2022* | * **Role:** Migrated several legacy satellite drivers, improving compatibility and increasing performance for critical hardware components, resulting in a 25% improvement in system compatibility and performance. * **Outcome:** Presented the strategic benefits of the upgrades to senior management, which significantly influenced the decision to extend an offer for continued part-time employment and a return internship. |

Education

Tufts University | Medford, MA

Doctor of Philosophy in Computer Science

*Expected graduation by 2028*

University of New Hampshire | Durham, NH

Bachelor of Science in Computer Science

*Graduated 05/2024*

* 3.96 GPA
* Graduated summa cum laude

Research

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| A Selective Replication Solution to Reduce Database Instability  Independent Study, University of New Hampshire  *11/2024 - PRESENT* | * **Innovation:** Engineered and simulated complex database interactions using Go-lang to model the effects of cache node failures on system stability, improving our understanding of fault tolerance mechanisms. * **Implementation:** Developed and implemented a novel selective replication strategy across cache nodes achieving significant enhancements in system resilience. Ongoing assessments aim to optimize and validate this approach. * **Impact:** Preparing to author a comprehensive research paper that will outline the methodology, results, and potential industry applications of the study, aiming to contribute significantly to the field of database management systems. |

Academic Projects

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| Mobile VR Lab  Capstone Experience, University of New Hampshire  *08/2024 – 05/2024* | * **Objective:** Develop an immersive VR educational system designed to blend guided tours with interactive 3D exploration. * **Technologies Used:** Unity, Android studio, Oculus headsets, C#, Java, Rust. * **Results:** Successfully showcased the Mobile VR Lab project at the University of New Hampshire’s Undergraduate Research Conference (URC) in April 2024, demonstrating its effectiveness in an academic setting. |

Honors & Awards

* **Highest Honors** – May, 2023, 06/2023, *University of New Hampshire Dean's List*
* **S. Robert Levine and Craig R. Benson Technology Scholarship**, 05/2023
* **Highest Honors** – May, 2022, 06/2022, *University of New Hampshire Dean's List*
* **NASA Space Grant Scholarship**, 12/2021

Skills

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| --- | --- |
| * Object-Oriented Programming:   + Java, C++, Swift * Functional/Hybrid Programming:   + Scala, Python, Go, JavaScript * Procedural Programming:   + C, bash * Web Development:   + HTML, CSS, TypeScript/JavaScript   (NodeJS, Angular, Ruby)   * Version control: git   + BitBucket, GitLab, GitHub | * Satellite Communication Systems:   + Ground system operations   + Integrating satellite payloads * Cybersecurity Principles and Applications * Microservice Design * API Development   + REST * Agile & Scrum Methodologies |

Find Me Online

* Website: [HannahMarsh.github.io](https://hannahmarsh.github.io/)
* LinkedIn: [www.linkedin.com/in/hannah-marsh-636678291](https://www.linkedin.com/in/hannah-marsh-636678291)