Jiayu Liu

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EDUCATION

New York University *Sept. 2022-May 2024*
Master of Science in Computer Engineering, GPA 3.5/4.0 *New York City, NY*

- **Courses**：Internet Architecture and Protocol, Data Structure and Algorithms, Computer Systems Architecture, Machine Learning, Real Time Embedded Systems
- **Scholarships and awards**: Yearly Merit Scholarship for two consecutive years starting from Fall 2022

Boise State University *Aug. 2018-May 2022*
Bachelor of Science in Computer Science, GPA 3.7/4.0 *Boise, ID*

- **Courses**：Data Structures, Intro to System Programming, Design and Analysis of Algorithms, Agile Development, Operating Systems, Digital Systems, Microprocessors, Network Security and Defense, Discrete Math, Linear Algebra
- **Scholarships and awards**：Dean's List with Honors: Spring 2020, Fall 2020, Spring 2021, Fall 2021;
  Yearly GEM Scholarship for four consecutive years starting from Fall 2018

PROJECT/RESEARCH

Augmented Library *Jan. 2023-Present*
Vertically Integrated Project *New York City, NY*

- Conducting extensive research and coding to implement an augmented reality NYU Bern Dibner library app as a team
- Utilizing React for the frontend, Django for the backend, and PostgreSQL for the database to develop a full stack application
- Constructing APIs for various users, books, and room reservations to enhance functionality and user experience
- Implemented Docker containers to encapsulate the full stack application, facilitating ease of distribution and development across the team
- Leading a sub-team for API development, coordinating with the backend leader to provide weekly progress reports and plan next steps

New Hire Onboarding Application *Jan. 2022-May 2022*
Sponsored Capstone Project with Micron Technology *Boise, ID*

- Collaborated with Micron Technology on a 4-month onboarding application project, developing a new hires' training platform
- Utilized Angular with bootstrap for the frontend, ASP.NET for the backend, and MongoDB for the database to create a comprehensive, user-friendly training platform
- Implemented CRUD functionalities for various training modules and established role-based access control for different users, ensuring that users had access only to the modules assigned to them
- Utilized a test-driven development process with Unit and Integration testing and employed Selenium WebDriver to test the frontend and Postman to test endpoints
- Demonstrated experience with Agile Development and managed the team's GitHub repository, including setting up CI/CD with GitHub Action, creating and assigning tasks, reviewing pull requests, squashing commits, and resolving merge conflicts

Joint research project between Boise State University & University of Wisconsin-Madison *Jan.2021-Jan.2022*
Undergraduate Research Technician of Informatics Skunkworks *Boise, ID*

- Improved image classification accuracy from 90% to 97% and reduced classification time by 20%
- Classified over 500 nanostructure images taken from atomic force microscopy
- Developed and trained convolutional neural networks with Python to scan and identify quantum dots within an image
- Using built-in MATLAB functionalities to replicate the experiment in papers in microscopic image detection
- Attended the progress workshop and presented semester-long progress slides to BSU and UW-Madison researching teams

WORKING EXPERIENCE

Institute for Pervasive Cybersecurity, Boise State University *Oct. 2021-May 2022*
Cybersecurity Analyst *Boise, ID*

- Monitored client networks and computer systems to prevent, detect, and investigate security breaches using Stellar Cyber
- Followed documented standard operating procedures and provided recommended updates on procedures as needed
- Applied critical thinking skills to security event data and determined the likelihood of possible attacks
- Self-directed research on topics such as Spring4Shell 0-day vulnerability
- Self-directed research on better utilization of the tools like Stellar Cyber that are used in the workflow

TECHNICAL SKILLS

Languages: Java, JavaScript, Python, SQL, C, HTML/CSS
Tools/Frameworks/Libraries: Springboot, Django, React Native, React, Git, Heroku, Docker, Postman, MySQL, Gradle