HELENA ILIC

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EDUCATION

University of Illinois Urbana-Champaign   *Aug 2023 - May 2027 (expected)*
Bachelor of Science in Computer Science   ***GPA: 4.00/4.00***
- **Relevant Coursework**: Data Structures (IP), Comp. Architecture (IP), Prob. & Stat. in CS, Linear Algebra, Discrete Structures

WORK EXPERIENCE

Software Engineering Intern   *May 2024 - Aug 2024*
Mutual of Omaha
- Implemented a scalable management system for **8,500** employees via Spring Boot RESTful API with CRUD & MVC security
- Developed full-stack logging feature aggregating >**700** company-wide user changes, saving employees >**3 hours** per week
- Achieved **92%** increase in production code coverage by writing comprehensive unit tests in Groovy with Spock framework
- Wrote >**3,000** lines of code to deliver dental provider management software tool with 5 app developers & 6 business analysts

Computer Science Research Scholar   *Sep 2023 - Present*
Social Spaces Research Group / CS STARS
- Pioneering query-related search algorithm bias research by quantifying **1,998** survey results using LIWC & TF-IDF vectorization
- Automating **7,992** searches and >**79,000** website extractions by coding Selenium script, accelerating project completion to **67%**
- Creating 22 data visualizations using Pandas and Matplotlib, providing information to address >50% of quantitative analysis
- Orchestrating CS research fair with >**200** attendees and leading 10 diversity & inclusion events to expand CS participation

Software Engineering Intern   *June 2022 - Aug 2022*
Constable
- Built AWS policy interpreter that can inventory >**1000** company resources & permissions alongside 3 senior engineers
- Extracted, transformed, and loaded 23 AWS resource changes into SQL data pipeline, ensuring >**85%** precision in company data
- Boosted software accuracy by >**50%** through programming and comprehensively debugging **70** test cases in PyTest codebase
- Designed user interface version management feature with search, utilizing **7** React components, enhancing ease of user experience

PROJECT & LEADERSHIP EXPERIENCE

Software Developer, *Coffee Chat Connect Application*   *Aug 2024 - Present*
- Developing mentorship matching application with **4 full-stack** pages, encouraging >**300 users** to find career mentorship easier
- Implementing **11** all-encompassing features including secure OAuth login, Google Calendar API connection, and results filtering
- Creating weighted profile matching algorithm that cross-checks **15** variables in order to personalize users' connections page
- Engaging in full software development life cycle of ideation, development, iteration, testing, and hosting in team of 4 students

Web Developer, *Women in Computer Science (WCS)*   *Sep 2024 - Present*
- Improving organizational point system retention by >**90%** with development of a QR code point feature that updates the backend
- Integrating Notion board with main website utilizing Notion API and database, providing real-time event tracking and visibility
- Modernizing **100%** of website tech-stack from HTML/CSS/Javascript to React, exponentially increasing codebase maintainability

Technical Consultant, *Champaign-Urbana Business and Engineering Consulting*   *Sep 2024 - Present*
- Developing AI chatbot for a ticket company, handling **80%** of inquiries & reducing response time by **95%** using OpenAI API
- Parsing **36 GB** of data into 5 clusters using text-ada-002 word embedding model to contextualize and improve LLM efficiency
- Synthesizing and presenting **12** weekly demos & slide decks following AGILE principles to effectively communicate with client

Computer Vision Lead, *Society of Women Engineers: Team Tech*   *Aug 2023 - Sep 2024*
- Optimized object detection model for John Deere, achieving **86%** accuracy & potential to save >**$3500** in tractor repairs annually
- Led multidisciplinary team of 5 CV/App developers and 4 hardware technicians in planning project & briefing industry sponsor

Data Analytics Team Lead, *Natural Disaster Project*   *Aug 2023 - Dec 2023*
- Analyzed >**50** data points in natural disaster and income datasets to determine relationship and provide transparency on inequities
- Led team of 6 students to predict future disaster locations by leveraging data through Linear Regression Model & scikit-learn

Integration Captain & Feature Project Manager, *Robotics Competition Team #3061*   *Aug 2019 - May 2023*
- Managed team of >**100** students to create competition-grade robot with Java, Inventor AutoCAD, and ShopBot fabrication
- Integrated 5 software and hardware robot mechanisms, dedicating **25-30** hours weekly & qualifying **2x** for World Championships

HONORS & AWARDS

- NCWIT: National Award for Aspirations in Computing
- NASA Engineering Award / Engineering Innovation Award
- Software Development Endorsement / Certification
- National Merit Scholarship Winner (top 0.1% of all students)
- Society of Women Engineers Grace Hopper Scholarship
- Excellence in Engineering Award / James Honors Scholar
- FIRST Robotics World Championships / Chairman's Award
- Illinois Engineering Outstanding Scholarship

SKILLS

- **Programming Languages:** Java, C++, Python, JavaScript, TypeScript, SQL
- **Frameworks/Tools:** Spring Boot, React, HTML/CSS, Git, Bash, PyTest, Pandas, NumPy, JIRA, Google Colab