

# Emma Luukkonen

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## EDUCATION

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### UNIVERSITY OF MICHIGAN, Ann Arbor, MI

Expected Graduation: May 2022

- **Major:** Computer Science, B.S. (GPA: 3.2)
- **Minor:** Physics
- **Relevant Coursework:** Data Structures and Algorithms, Artificial Intelligence, Computer Architecture, Discrete Mathematics, Data Analysis and Statistics, Foundations of Computer Science

## INTERNSHIP EXPERIENCE

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### ALLY FINANCIAL, Detroit, MI

June 2020 – August 2020

#### *AIOps Intern*

- Streamlined capacity and storage reporting by automating virtual machine data analytics using REST APIs
- Implemented a Python script to parse VMware capacity data; combined this data with data from other sources to create a real-time, comprehensive view of current capacity utilization and storage usage
- Developed a capacity reporting dashboard in Power BI for storage, memory, CPUs, and RAM data
  - This dashboard illustrated current utilization and a predictive forecasting model for future utilization trending, calculated using DAX (Data Analysis Expressions) measures in Power BI
- Utilized ServiceNow reporting feature to create an automated data pipeline into MS Teams and Power BI to improve the process of allocating, buying, and managing storage and memory
- Increased awareness of efficient capacity management by presenting my project work to senior leadership
- Communicated with key stakeholders and other team members to spearhead the capacity project based on team needs
- Gained experience in Python, Power BI, REST APIs, Postman, VMware, ServiceNow, BigPanda, Visual Studio Code

### PROMODEL CORPORATION, Ann Arbor, MI

May 2019 – August 2019

#### *Software Development Intern*

- Optimized new web-app testing by implementing an automated testing suite using Selenium
  - Utilized TeamCity to run regression tests triggered by new Sourcetree commits; the results of these tests were reported via TeamCity through Slack and email.
- Improved two web applications by updating information, organizing pages, and fixing bugs
- Integrated a “help” page and web documentation for two customer-facing web applications using HTML, CSS, and Markdown
- Gained experience in C#, front-end web development, automated testing, Agile Methodology, JIRA, Selenium WebDriver

## SOFTWARE PROJECTS

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**Personal Website:** <http://emmaluukkonen.com/>

**GitHub:** <https://github.com/luukkoe>

#### **Mancala: Artificially Intelligent Gameplay**

- Implemented a single and multi-player Mancala game in C++, using the Minimax algorithm with alpha-beta pruning for an AI-based single player response

#### **Sudoku Solver**

- Implemented the AC-3 algorithm in Python to solve Sudoku puzzles based on arc-consistency between neighboring squares

#### **Log Manager**

- Created a command-line program in C++ to parse error log files and allow the user to query based on timestamp, category, or keyword

## CORE SKILLS

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- Languages (proficient): C++, C, Python, HTML/CSS (familiar): C#, Java, JavaScript
- Tools: Xcode, Visual Studio, Selenium, Power BI, GitHub, PowerShell, REST API, Postman, BigPanda, VMware, Markdown, PyCharm, Matlab, LaTeX, R