

# KATIE MACALINTAL

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## EDUCATION

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### Middlebury College

*Candidate for Bachelor of Arts, Computer Science*

**Middlebury, VT**

*Expected May 2024*

**Cumulative GPA:** 3.97/4.0 (College Scholar: Highest Academic Honor)

**Relevant Courses:** Data Structures, Algorithms and Complexity, Systems Programming, Crash Course in Systems Security, Math Foundations of Computing, Calculus I, Linear Algebra, Computer Networks (Now), Machine Learning (Now)

**Skills:** JAVA, Python, C, Linux, React.JS, JSON, HTML, CSS, VSCode, Vim

## EXPERIENCE

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### Middlebury's Computer Science Department

*Course Assistant for Introduction to Computing in Python*

**Middlebury, VT**

*September 2021 - Present*

- Work with up to 15 students simultaneously on their coding assignments, which focus on exploring foundational algorithmic strategies such as selection, iteration, and recursion during scheduled two-hour-long office hours
- Ask students guiding questions on their assignments to help them debug their code and promote active learning

### Microsoft

*Explore Intern (SWE + PM) for AI Cognitive Services*

**Bellevue, WA**

*May 2022 - August 2022*

- Created a website with two podmates through full stack development in React.js for internal employees and 1P customers to demo and share feedback on document extractive, document abstractive, and conversation summarization capabilities
- Called asynchronous summarization methods through REST API to allow users to easily interact with services without needing external API tools

## PROJECTS

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### Algorithms and Complexity Course: Shortest Route (JAVA)

*May 2022*

- Implemented the Bellman-Ford dynamic programming algorithm to find the shortest walking route between two locations in Middlebury, VT in a timely manner
- Utilized hash maps as adjacency lists to efficiently store and organize data from the Middlebury map in a graph-like structure

### Algorithms and Complexity Course: Closest Schools (JAVA)

*March 2022*

- Developed a program that found the closest pair of K-12 schools in Vermont based on data provided to address the financial challenges associated with schools where student populations have been falling
- Implemented an algorithm that found the closest pair of schools in  $O(n \log n)$  time using divide and conquer paradigms

### Data Structure Course: Spell Checker (JAVA)

*May 2021*

- Utilized HashTables to store words read from a dictionary file and enable time-efficient spelling verifications
- Implemented a bucket sort to order the misspelled words alphabetically efficiently
- Wrote a version of the input file with the misspelled words corrected according to the user's choice, a file containing a list of the misspelled words with their line numbers in order of appearance, and a file that displayed misspelled words alphabetically

## LEADERSHIP

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### Middlebury's Women in Computer Science Club (WiCS++)

*President (January 2022 - December 2022), Treasurer (January 2023 - Present)*

**Middlebury, VT**

*January 2022 - Present*

- Implemented new interview prep and career resource workshops to better prepare members for their recruitment processes
- Partnered with our Center for Careers and Internships to organize three sessions a semester featuring alumni leaders in technology to better inform members about topics such as different career paths and post graduation life
- Propose and manage a \$2,000 budget tailored towards promoting learning and strengthening the connections between members

## AWARDS & ORGANIZATIONS

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**Conferences:** Grace Hopper Celebration 2021 Scholar, WECode 2021 and 2022 Conference, Liberty Mutual's Women in Technology Summit 2021, Tapia Conference 2022 Scholar, Grace Hopper Celebration 2022 Attendee

**Activities:** MiddCORE Summer Intern Lab 2021, South East Asian Society (SEAS), Women of Color (WOC)