


# Matt Cadena

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## SUMMARY

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Ambitious Information Systems senior seeking a software engineering role, bringing creativity and technical proficiency to a dynamic team

## EDUCATION

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**Carnegie Mellon University**, Pittsburgh, PA

May 2026

*Bachelor of Science in Information Systems*  
*Minors in Computer Science and Artificial Intelligence*

*Current GPA: 3.88/4.00*

**Divine Child High School**, Dearborn, MI

May 2022

*High School Diploma*

*GPA: 4.69/4.00*

## RELEVANT COURSEWORK

Application Design and Development, IS Software Development Project, Intro to Computer Systems, Parallel and Sequential Data Structures & Algorithms, Intro to Machine Learning, Intro to Deep Learning

## SKILLS

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**Languages:** JavaScript, Python, C, Ruby, Standard ML, SQL, HTML, CSS

**Tools & Libraries:** Git, React, Jest, PostgreSQL, MongoDB, PyTorch, GitHub Actions, GCP, AWS, LaTeX, Max/MSP

## EXPERIENCE

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**Nextdoor**, San Francisco, CA

May 2025 - August 2025

*Software Engineer Intern*

- Worked on backend features to personalize notifications for millions of users daily, optimizing delivery pipelines and user-targeting logic
- Implemented a change in comment ranking for local news emails, increasing click-through rate by 10% and weekly active users from iOS emails by 1%

**Ford Motor Company**, Dearborn, MI

May 2024 - August 2024

*Software Engineer Intern*

- Developed an internal Call Center Agent tool using React, featuring advanced search functionality that displays article results, replacing an outdated system
- Eliminated 30-second timer discrepancy in Lean Coffee application, ensuring seamless experience across clients
- Mentored new interns, reducing their time to productivity from three days to one by creating a comprehensive onboarding guide and providing personalized guidance

## PROJECTS

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**Dynamic Memory Allocator** ([Email for Access](#))

*C, Memory Management*

- Implemented a 64-bit implicit free-list memory allocator with segregated free lists for CMU's 15-213 course, maintaining 16-byte alignment and coalescing free blocks to minimize fragmentation

**RNN Language Model with Self-Attention** ([Email for Access](#))

*PyTorch, Transformer Architecture*

- Built an autoregressive RNN language model enhanced with scaled dot-product self-attention, implemented in PyTorch, to predict next-token probabilities on TinyStories

## NCAA ATHLETICS: MEN'S SOCCER

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**Leadership Group, Class Leader:** facilitated monthly open discussions among other class leaders and coaches, representing views and concerns of classmates in order to foster success and growth both on and off the field

**Soft skills:** navigating a demanding athletics schedule at a rigorous university has cultivated skills in attention to detail, time management, and organizational proficiency