

# Michael Pavkovic

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## Education

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Amherst, MA	University of Massachusetts, Amherst	Fall 2018 – May 2022 (Expected)
<ul style="list-style-type: none"><li>B.S. in Computer Science, College of Information and Computer Sciences; Cumulative GPA: 3.93<ul style="list-style-type: none"><li>Courses: Data Structures and Algorithms, Reasoning Under Uncertainty, Computer Systems Principles, Calculus II, Calculus III</li></ul></li></ul>		

## Work Experience

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iOS Developer	UMass Amherst College of Education	Fall 2018 – Present
Project RAISE – Interactive Textbook iPad App <ul style="list-style-type: none"><li>Audited app for SQL injection vulnerabilities, improving security and proper use of the database API</li><li>Polished key user interactive components, allowing for an easier learning experience for students who use the app</li><li>Re-implemented the image editor / drawing tool from the ground up using the Metal graphics API</li><li>Used GPU hardware acceleration to greatly improve the quality and speed of line drawing, raising student engagement</li></ul>		
Software Developer	Stormgears FRC	Fall 2015 – Summer 2018
<u>Competition Robot Codebase</u> <ul style="list-style-type: none"><li>Implemented asynchronous routines to autonomously operate championship winning robots, and gather sensor data at the same time</li><li>Maintained OOP practices with Kotlin to make code reusable, maintainable, and efficient</li><li>Extensively utilized Git Version Control, fixed merge conflicts, and fixed bad commits</li><li>Collaborated in an agile team of 6 people, and used Trello to facilitate daily scrums</li><li>Fixed bugs in a tense competition environment, saving the team at times from losing matches</li></ul> <u>Stormgears Scouting</u> <ul style="list-style-type: none"><li>Implemented the backend for a data-submission web app to keep track of robot competition performance</li><li>Utilized NodeJS and Google Docs APIs to store data submitted from web to a Google Sheet</li><li>Team analyzed data gathered with app and it allowed Stormgears to strategically choose alliances and win competitions</li></ul>		
Web Developer	Persomics, Inc	Summer 2018 – Fall 2018
<u>Corporate Website</u> <ul style="list-style-type: none"><li>Implemented company blog (<a href="http://Persomics.com/blog/">Persomics.com/blog/</a>) using Jekyll Collections, and added integration with a content management system for easy future writing and edits (Netlify CMS)</li><li>Wrote a custom Jekyll plugin in Ruby to index blog post topics, generate topic index pages, and find related posts; made navigating to similar articles easier and quicker</li><li>Cleaned up pages to load faster, and use less memory by removing unnecessary JavaScript from previous generated HTML: Load times and data usage reduced by 50%</li></ul>		

## Project Experience

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KunaCalc (2018)
<ul style="list-style-type: none"><li>Designed iOS calculator app written in Swift that features a computer algebra system capable of solving algebra and calculus problems</li><li>Added accessibility features including number readout, left hand mode, color blindness themes, and dictation</li><li>Made it fully end-user programmable for infinite customization and use cases</li></ul>
sirius2spotify (2018)
<ul style="list-style-type: none"><li>Wrote terminal app in Kotlin that utilizes HTTP GET and POST requests to scrape playlist data from Sirius XM and appends the songs found to a Spotify playlist</li><li>Leveraged HashSet to avoid song duplication</li><li>Utilized Kotlin Delegation to parse parameters, and store them in a key/value store</li></ul>

## Awards

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- Third Place, St. Anselm Programming Contest:** Awarded 3<sup>rd</sup> place prize for completing the algorithms contest with high program validity
- Senior Computer Science Award:** Awarded Computer Science award for dedication to Computer Science in and out of the classroom, Senior year of high school

## Languages and Technologies

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- Swift, Java, Kotlin, Metal (Graphics API), TypeScript, C, Javascript/HTML/CSS, Ruby (Jekyll), Bash
- macOS, Linux, IntelliJ, Xcode, VSCode, Fish Shell, Xcode Interface Builder, Git Version Control, SQLite, PostgreSQL, Gradle, CI/CD