

Andrew Nolan

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Education

Worcester Polytechnic Institute (WPI), Worcester MA,

Master of Science, Computer Science, GPA: 4.0/4.0

May 2021

Bachelor of Science, Computer Science, GPA: 3.97/4.0

May 2021

Programming Languages/Frameworks

JavaScript, React, Node, Java, Springboot, Python, SQL, CSS, HTML, MATLAB, Go

Software/Tools

AWS (S3, EC2, DynamoDB, OpenSearch, RDS, CloudFormation), TeamCity, Visual Studio, Windows, Linux, Git, Virtual Box, MariaDB, Oracle Database, Virtual Box, Microsoft Office Suite

Related Experience

Senior Software Engineer, MathWorks Online Learning, Natick MA **May 2024-Present**

- Creating the next generation of MathWorks Self-Paced Online Courses and related services using React, Go, and AWS
- Leading development efforts on course creation tools by writing clean software and mentoring new engineers.
- Ensuring product security by working with pen testing and threat assessment efforts.

Fullstack Software Engineer, MathWorks Online Learning, Natick MA **March 2022-Present**

- Developed full stack software using modern JavaScript, Springboot, and AWS to improve the course creation process for MATLAB experts
- Explored the possibilities of generative AI to assist in the development of educational content creation
- Supported localization initiatives for new courses and enhanced the infrastructure to support French, Italian, and German
- Proactively addressed bugs and customer reported enhancements
- Collaborated with cross-functional teams in UX, marketing, and training services

Associate Engineer, MathWorks Engineering Development Group, Natick MA **July 2021-March 2022**

- Developed a feature to improve sharing of learner progress in MathWorks Online Courses
- Wrote content covering file sharing of MATLAB code for the MATLAB Essentials EdX course
- Revamped an internal training course on MEX files taken by all new EDG members at MathWorks

Student Teaching Assistant, WPI, Worcester MA **October 2018-May 2021**

- Taught introductory coding courses in Python, SQL, Java, and Racket
- Taught advanced courses in Databases and Ethics of Computer Science

Engineering Development Group Intern, MathWorks, Natick MA **May-August 2020**

- Improved the performance and reliability of saving plain text files in JavaScript versions of the MATLAB editor by implementing a piece table and chunked saving

Web Development Intern, Wakefly, Marlborough MA **May-August 2019**

- Developed responsive web applications using CSHTML, SCSS, JavaScript and C#
- Managed content in several CMS including Sitecore, Umbraco, Kentico Cloud, and WordPress

IT Intern, NMS Labs, Willow Grove PA **May-August 2018**

- Assisted in developing a web application using HTML, JavaScript, and CSS
- Programmed an inventory management application using C# and the MVC framework

Projects

Major Qualifying Project, WPI **August 2020-April 2021**

- Continued research into BrainEx, a time series comparison tool
- Extended the tool with a React.js/Django frontend to include a cluster explorer for time series data
- Published work in the ACM Proceedings of Human Computer Interaction - EICS June 2022 issue

COVID Traveler – Mobile and Ubiquitous Computing Final Project, WPI **August 2020-December 2020**

- Developed an Android app to provide users with accurate COVID data based on their location
- Allowed users to report misuse using a neural network trained to detect masked faces