

Mikel Matticoli

EDUCATION

Worcester Polytechnic Institute [WPI] — Worcester, MA

B.S. Computer Science + B.S. Interactive Media and Game Development
May 2021

South Brunswick High School [SBHS] — Monmouth Junction, NJ

High School Diploma

June 2017

PROFESSIONAL EXPERIENCE

Project Manager — WPI Global Lab Worcester, MA

Sep 2018 - Present (Part Time, School Year)

- Create transmedia content to foster a positive social impact
- Showcase uses of AR/VR and media technology for global engagement
- Provide technical training and advice to students and faculty
- Build and maintain intuitive and accessible documentation on equipment

Technology Consultant — Bloomberg LP Dayton, NJ

Jun 2018 - Present (Full-Time, Summers and Term Breaks)

- Design and development of Augmented and Mixed Reality software
- Worked with an engineering team to research AR tools/frameworks
- Researched and identified use cases for AR in a datacenter environment
- Creation of accompanying 3D assets (models, textures, animations)
- Integration with workflow automation APIs

Research Assistant — WPI IMGD x. Bose Worcester, MA

Aug 2019 - Dec 2019 (Part Time, School Year)

- Work with IMGD/CS faculty at WPI on Bose-sponsored research
- Research use cases for spatial sound based AR
- Develop software to integrate Bose AR with other tools/frameworks

Datacenter Intern — Bloomberg LP Dayton, NJ

Jun 2017 - Aug 2017 (Full-Time, Summer Internship)

- Participated in technical aspects of datacenter maintenance/operations
- Worked on hardware troubleshooting & scripted workflow automation
- Developed internal web portal/REST API for monitoring power statistics
- Attained familiarity with Agile/Scrum methodology

Software Engineering Intern — SelfMade Co. New York, NY


Jun 2016 - Aug 2016 (Full-Time, Summer Internship)

- Added several major features to customer communications/CRM web app
- Added Slack app, canned response/autocomplete and mobile UI redo
- Gained proficiency with NodeJS Ecosystem, MeteorJS, ReactJS, and SCSS

iOS Development Intern — UpSwerve Inc. New York, NY

Jun 2015 - Aug 2015 (Full-Time, Summer Internship)

- Added video capture and sharing features (server/mobile/web), as well as minor features and bug fixes for Snapchat-like iPhone app Camera Club
- Attained proficiency with Git, Node+SQL, iOS, and code styling guidelines

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 [matticoli.github.io](https://github.com/matticoli)   

SKILLS

Spoken & Written Languages

Spanish (Native), French (Proficient)

Programming Languages & Frameworks

★★★★★ Web (HTML, CSS, JS, JSON, JQuery)
★★★★★ JS+ (Node, React, Firebase, Express)
★★★★★ Python (Flask, PyLint, REST/SQL)
★★★★★ Java (Desktop, Android, Enterprise)
★★★★★ C# (Microsoft DEV204x Certified)
★★★★★ C / C++ / Make
★★★★★ MySQL / SQLite / MongoDB
★★★★★ Google Cloud Platform
★★★★★ Apache2 / HAProxy / Wordpress
★★★★★ Docker / AWS / Azure Cloud
★★★★★ Objective-C / Xcode

Software & Tools

★★★★★ Microsoft Office Suite / G Suite
★★★★★ Linux / CLI (Debian, RHEL, Arch)
★★★★★ Git / GitHub / GitHub Enterprise
★★★★★ Adobe Premiere / Video Editing
★★★★★ Unity3D (VR/AR, Games, Tools)
★★★★★ Unreal Engine (Blueprint and C++)
★★★★★ Photoshop / GIMP (Image Editing)
★★★★★ Autodesk Maya (Model, Rig, Anim)
★★★★★ Vuforia / Vuforia Studio (AR)
★★★★★ Pixologic ZBrush

Miscellaneous Skills

★★★★★ Human-Centered Design (UI/UX)
★★★★★ Professional Writing / Documentation

ACADEMIC HONORS/AWARDS

IMGD Community Leader Award 2020

WPI Provost MQP Award 2020

WPI Dean's List 2018-19

VEX Robotics Scholarship Award 2017-21

WPI Unity Scholarship Award 2017-21

Hispanic Scholarship Fund Scholar 2018-20

MAJOR EVENTS / COMPETITIONS

VEX U Worlds 2019 - Innovate Award

Hack@WPI '19 - GitHub Instructor/Expert

HackForVenezuelaNYC '19 - Event Organizer

HackForVenezuelaWPI '18 - Lead Organizer

2017 SB Entrepreneurial Fair - 1st Place HS

MontyHacks 2017 - Best Educational Hack

HackSBPL 2017 - Founder/Coordinator

HackSBHS 2016 - Founder/Coordinator

NJ VRC States 2015 - Robot Skills Champion

HIGHLIGHTED COURSEWORK

Object-Oriented Design, Software Engineering, Systems Programming, Operating Systems, Human-Computer Interaction, Game Design, 3D Modelling, Animation, Motion Capture, Foundations (Theory) of CS, Cognitive Psychology, Webware, Game Audio, AI, Graphics, Intro Robotics

VOLUNTEER EXPERIENCE

Robotics Coach / Advisor — South Brunswick Schools *South Brunswick, NJ*

Jun 2019 - Present

- Provide instructional support and mentorship for South Brunswick High School's competitive robotics teams
- Work with South Brunswick High School staff to coordinate finances and logistics for the teams
- Organize VEX Robotics Competition event at SBHS as an event partner of the Robotics Education Competition Foundation

Software Engineer — JazzHistoryDatabase, Inc. *Worcester, MA*

Mar 2019 - Present

- Design, develop, and deploy a content management solution for JHDB contributors to use globally
- Coordinate teams of university students in developing and maintaining CMS using Agile methodologies
- JazzHistoryDatabase is a non-profit archival effort of jazz artifacts and culture, with contributors around the world
- Technologies used: NodeJS, React, Firebase, GitHub, Google Cloud Platform (App, Compute, Cloud Build), HAProxy

Co-Founder, Systems Administrator — InnovateVenezuela *New York, NY | Boston, MA*

Nov 2018 - Present

- Connect with developers, entrepreneurs, students and professionals within the LatinX community
- Organize hackathons and networking events for student and professional audiences
- Support the development of actionable technological solutions to Venezuela's humanitarian crisis
- Maintain website, open-source GitHub Organizations, and support long-term development projects

RECREATIONAL EXPERIENCE

Event Coordinator / Treasurer — WPI Association of Computing Machinery

Aug 2017 - Present

- Organize technical workshops for WPI Community members
- Coordinate logistics and programming for Hack@WPI and other ACM workshops/events
- Manage budget and process purchase orders and expense reports for ACM hackathons and computing-themed events

Competitive Robotics - Programmer / Treasurer — WPI Robotics Club

Aug 2017 - Present

- Active member (driver, programmer, team logistics) on WPI's competitive VEX U team
- Qualified for 2018 VEX Worlds Championship through driver skills
- Travel planning for VEX Worlds 2019 trip to Louisville, KY
- Manage budget and process purchase orders and expense reports for team supplies

Competitive Robotics - Team Captain / Student Ambassador — SBHS VEX Team 750E

Sep 2014 - June 2017

- Assisted and supervised all aspects of robot design, construction, programming, documentation for SBHS Robotics club
- Primary programming projects included a system to autonomously replay driving runs using joystick emulation, *Innovate* award winning auditory feedback system, and *Create* award winning dynamic on-board troubleshooting and diagnostic system
- Worked with advisor to develop competitive application and training process, including a build/programming curriculum
- Developed cross-platform scouting/inventory software using ReactJS+FireBase