Bradley Schmitz

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GitHub: github.com/dolphinswarm   **Portfolio**: bradschmitz.com

EDUCATION

Miami University – Bachelor of Science and Bachelor of Arts, Oxford, OH   *Expected May 2021*
   Majors: Computer Science and Interactive Media Studies
   Minors: Music Performance (saxophone) and Music Composition
   Cumulative GPA: 4.0/4.0 | President's List, 6 semesters | University Honors Program
   Tau Beta Pi Engineering Honors Society | Lockheed Martin Leadership Institute

PROFESSIONAL WORK EXPERIENCE

ClickTime – San Francisco, CA (remote)
   Software Developer Intern   *Jun. 2020 – Present*
   - Develop features and fix bugs in ClickTime's web application and API
   - Utilize git, JavaScript (Angular), C# (.NET Framework) and other technologies to perform full-stack web development
   - Collaborate with other interns to develop an "intern project" to present to ClickTime

London Computer Systems – Cincinnati, OH
   Software Developer Intern   *May 2019 – Aug. 2019*
   - Collaborated with other developers and testers to implement new features and bug fixes for Rent Manager 12's REST API
   - Created API endpoints, embeds, and filters for retrieving, storing, and deleting database info
   - Acquired experience in Agile software development using C# (.NET Framework) and SQL
   Quality Assurance Intern   *May 2018 – Aug. 2018*
   - Identified, analyzed, and documented defects, questionable functions, errors, and inconsistencies in Rent Manager 12
   - Created and executed automated test scripts using testing software programs

Putnam County Educational Service Center – Ottawa, OH
   Summer Technology Camp Instructor   *May 2013 – May 2018*
   - Educated junior high students from Putnam County about modern technology topics, including green energy, robotics, cloud computing, coding, data and privacy, and graphic design
   - Collaborated with other instructors to create an enjoyable and positive environment for student to learn
   - Specialized in teaching coding and 2D/3D game design through Scratch and Kodu Game Lab

UNIVERSITY RESEARCH AND WORK EXPERIENCE

Department of Emerging Technology in Business + Design
   Research Assistant and Virtual Reality Developer   *January 2020 – Present*
   - Assist Dr. Eric Hodgson in researching and developing a virtual reality medical training simulation for a client
   - Focusing on programming, code refactoring, event system, haptic feedback, and user interface
   - Collaborate with a 3D modeler / animator to increase simulation engagement

Department of Computer Science and Software Engineering
   Teaching Assistant (CSE 489: Game Engine Design)   *June 2020 – Present*
   - Assist Dr. Eric Bachmann in preparing labs and projects, answering questions, and grading
   - Lead weekly help sessions to reinforce course topics, including OpenGL graphics pipeline, shaders, integrations (FMOD, Bullet physics engine, etc.) and more

- Utilized OpenGL to add features to the C++ game engine, including 2D text, skyboxes, and clicking

Teaching Assistant (CSE 386: Foundations of Computer Graphics)   *January 2020 – Present*
- Served as a student resource for enrolled students by answering questions and assisting with labs
- Lead weekly help sessions to reinforce course topics, including linear algebra, ray tracing, and vector-based 3D graphics generation
- Collaborated with another teaching assistant to quickly and accurately grade student labs

Rinella Learning Center

Tutor   *August 2019 – December 2019*
- Lead over 75 tutoring sessions in the subjects of algebra and trigonometry for first-year students
- Received Level 1 tutor certification through the College Reading & Learning Association

COURSE PROJECTS

vrchery: Virtual Reality Archery Game   September 2019 – November 2019
- Created an Oculus Rift virtual reality archery simulation for an Honors course extension in *IMS 461: Virtual and Augmented Reality*
- Implemented haptic feedback, realistic bow and arrow simulation, and user interface / interaction

AR Looper: Augmented Reality Loop Machine   September 2019
- Created a Vuforia augmented reality simulation for creating custom music loops in *IMS 461: Virtual and Augmented Reality*
- Implemented five instrument sets with five instruments each, audio effects, and user interface

Appalogue: Ruby on Rails App Directory   March 2019 – May 2019
- Developed a web-based Ruby on Rails app directory, visible at **appalogue.herokuapp.com**, in *CSE 201: Introduction to Software Engineering*
- Created the interface from scratch using HTML and CSS
- Implemented app view/submission/deletion, user login, user permissions, and star reviews

MuseScore Interface Redesign   January 2019
- Evaluated the usability of MuseScore 3.0's interface in *IMS 315: User Experience Research*
- Conducted tests on MuseScore's interface and experience, and wrote a report analyzing the results
- Utilized Axure RP to redesign MuseScore 3.0's interface and create prototype interfaces for testing

CAMPUS INVOLVEMENT AND LEADERSHIP EXPERIENCE

Lockheed Martin Leadership Institute – Cohort VIII   *September 2018 – Present*
- Selected to be a member of a 3-year cooperative engineering leadership program
- Develop personal, people, and strategic leadership skills, including communication, project management, emotional intelligence, innovation, self-knowledge, and open-mindedness
- Collaborated with other cohort members to prepare and deliver a virtual summit on the topic of embracing change

Honors Student Advisory Board   *September 2017 – Present*

Vice President   *November 2019 – Present*
- Collaborate with the University Honors Program and other Honors students to plan social, philanthropic, and academic events for engaging the entire Honors community
- Develop a sense of community and membership within HSAB internally by planning events for HSAB members

Director of Public Relations   *November 2017 – November 2019*
- Served two consecutive terms as the Director of Public Relations

- Managed HSAB's social media, branding, advertisement, and campus outreach
- Created a recruitment video, a new website, and a branding guide for the organization

Tau Beta Pi, Ohio Xi Chapter *May 2019 – Present*
  President *May 2020 – Present*
- Selected from the top 1/8 of students in the College and Engineering and Computing to join Tau Beta Pi, a national engineering honor society
- Plan meetings, schedule election and initiation of new members, and represent Tau Beta Pi for Miami University
  Social Chair *May 2019 – May 2020*
- Planned and organize social events to bring Tau Beta Pi's members together
- Operated all chapter communication, including emails and social media

Miami University Musical Ensembles *January 2018 – Present*
  Saxophonist
- Perform music with various Miami University Musical Ensembles
- Miami University Jazz Ensemble: Fall 2018 (baritone saxophone), Fall 2019 (1st alto saxophone)
- Miami University Symphony Band: Spring 2018 (tenor saxophone), Spring 2019 (tenor saxophone), Spring 2020 (2nd alto saxophone)

Kode2Learn *January 2018 – Present*
  Member
- Teach local elementary students about coding through fun and easy tutorials
- Utilize platforms like Scratch and Code.org to help students easily learn the basics of coding

Scholar Leader Program *August 2018 – May 2019*
- Selected to be a member of a living-learning community on campus dedicated to service and leadership
- Served on the Programming Cluster, which planned social events for the LLC

University Honors Program *January 2018 – December 2018*
  Honors Ambassador
- Welcomed incoming Honors students to Miami University by drafting postcards, emails, and helping at Honors Convocation
- Performed a "takeover" of the Honors social media to promote the University Honors Program

HONORS AND AWARDS

- **President's List** – 6 semesters (Fall 2017, Spring 2018, Fall 2018, Spring 2019, Fall 2019, and Spring 2020)
- **Top 10 Second-Year Student in the College of Engineering and Computing** – Presented by Tau Beta Pi, May 2019
- **Honors Ambassador Peer Leadership Certificate** – Presented by the Miami University Honors Program, December 2018
- **Top 10 First-Year Student in the College of Engineering and Computing** – Presented by Tau Beta Pi, May 2018
- **Eagle Scout** – Presented by the Boy Scouts of America, February 2016

SKILLS

- **Programming Languages**: C#, C++, JavaScript, Java, PHP, Ruby, Python, SQL, R, SAS
- **Frameworks and Technologies**: .NET Framework, Angular, jQuery, PostgreSQL, OpenGL, Ruby on Rails, Git (GitHub, GitLab, Bitbucket), Unity Engine, Unreal Engine
- **Software Development**: MVC web development, REST API development, virtual/augmented reality development

- **Design**: UI/UX design, graphic design (Adobe Photoshop/Illustrator/InDesign), motion and video design (Adobe AfterEffects/Premiere, Notch Builder, Touch Designer), audio and music design (FL Studio, Finale, Audacity, and Ableton Live)
- **Saxophone**: Performance on soprano, alto, tenor, and baritone saxophones, including pieces by Noda, Villa-Lobos, Creston, Ibert, Heiden, and Lunde