# Alexander Giovannelli

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#### EDUCATION

Virginia Tech

Blacksburg, VA, USA

Ph.D. in Computer Science, GPA: 4.00/4.00

Aug. 2021–Current

- Advisor: Doug A. Bowman

University of Cincinnati Cincinnati, OH, USA

B.S. in Computer Engineering, GPA: 3.30/4.00 Aug. 2013–May 2018

- Minors: German Studies, Computer Science

# EXPERIENCE

Virginia Tech

Blacksburg, VA, USA

Graduate Research Assistant

— Conducted research regarding avatar visualizations in AR collaboration

- Generated prototype applications and experimental studies for future evaluation

- Published research study results regarding intermittent typing in immersive virtual reality

#### JPMorgan Chase & Co.

Columbus, OH, USA

Associate Software Engineer I

Jul. 2018-Jul. 2021

May. 2022-Aug. 2022

- Developed front-end features for Chase.com using JavaScript, HTML, and CSS technologies
- Designed and implemented minimum viable product user interfaces via Figma design tool
- Authored technical documentation for product owners and developers
- Appointed subject matter expert in behavioral-driven development and CI/CD initiatives
- Automated logging of proprietary systems using the Python programming language

Siemens Healthineers Software Engineer Intern Forchheim, BY, DE Jan. 2017–Aug. 2017

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- Developed back-end software for use in advanced the rapy devices using the C $\!\#$  programming language
- Created system architecture diagrams to record project design changes and behaviors with Sparx Enterprise Architect
- Represented project team in international software system integration meetings

# Granville Exempted Village Schools

Granville, OH, USA

May 2016–Jul. 2016

Systems Administrator Intern

- Provisioned Windows and Linux server and workstation systems to support school network infrastructure
- Administered changes to proprietary devices regarding operating system applications, packages and images
- Managed summer technician team operations

# Matrix Technologies, Inc.

Maumee, OH, USA

Computer Programmer and Systems Analyst Intern

Aug. 2015-Dec. 2015

- Created full-stack internal software tools for engineers and project managers using C#, XML and SQL technologies
- Updated existing project management software according to submitted user feedback
- Authored software usage documents to elaborate on internal tool usage

#### Matrix Technologies, Inc.

Computer Programmer and Systems Analyst Intern

- Maumee, OH, USA Aug. 2014–Dec. 2014
- Enhanced existing proprietary software using the C# programming language
- Researched emerging technologies and presented potential process improvements for development team
- Coordinated project design changes with stakeholders

#### **Publications**

- [1] A. Giovannelli, L. Lisle, and D. A. Bowman, "Exploring the impact of visual information on intermittent typing in virtual reality", in 2022 IEEE International Symposium on Mixed and Augmented Reality (ISMAR), 2022.
- [2] L. Lisle, F. Lu, S. Davari, I. A. Tahmid, A. Giovannelli, C. Llo, L. Pavanatto, L. Zhang, L. Schlueter, and D. A. Bowman, "Clean the ocean: An immersive vr experience proposing new modifications to go-go and wim techniques", in 2022 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW), 2022, pp. 920–921.

# PROJECTS

- A Digital Twin Based Approach to Smart Lighting Design (2022)
- Developed methods and techniques to support smart lighting design in an immersive virtual reality experience An Evaluation of Web Application Energy Consumption using WebAssembly (2021)
- Created a WebAssembly workbench for evaluation of programming language execution time and energy efficiency

# SCHOLARSHIPS AND AWARDS

• IEEE Conference on Virtual Reality and 3D User Interfaces Contest Winner	2022
• International Co-op Program Scholarship	2016-2017
• Matrix Technologies, Inc. Co-op Scholarship	2014 – 2016
• Cincinnatus Scholarship	2013-2014

#### TEACHING

• Graduate Teaching Assistant at Virginia Tech	Spring 2022
oftware Design & Data Structures (CS-2114)	
• Graduate Teaching Assistant at Virginia Tech	Fall 2021

#### • Graduate Teaching Assistant at Virginia Tech Software Design & Data Structures (CS-2114)

#### **ORGANIZATIONS**

• Member at Computer Science Graduate Student Council

Represented the interests of the CS graduate student body both within the department and outside, helped organize social events among graduate students, and helped incoming students become familiar with departmental procedures and activities

### SKILLS

- Programming Languages: C#, JavaScript, Java, Python, Go, HTML, CSS
- Development Tools: Unity, Git, Jira, Figma, Blender