

Gabriel Caniglia

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EDUCATION

Northwestern University, GPA—3.825

Sep 2015—Dec 2019 (Expected)

M.S. Computer Science (Dec 2019)

B.A. Cognitive Science and Segal Design Certificate (Jun 2019)

WORK EXPERIENCE

Undergraduate Researcher and Developer, Industrial Engineering Department

Jun 2017—Present

- ▶ Develop SAFE: NSF-funded dashboard system used by race and government officials at three large-scale events; allows for real-time monitoring of medical and runner info for up to 45,000 participants
- ▶ Deploy and manage system annually at Chicago Marathon (October), Houston Marathon and Half Marathon (January), and Shamrock Shuffle (March)
- ▶ Rewrite and redesign the responsive, dynamic course map display using the Mapbox GL JS API

Technical Consultant, The Garage at Northwestern

Oct 2015—Present

- ▶ Design and build the ~2,250 sq. ft. Makerspace and Virtual Reality/Augmented Reality (VR/AR) Lab, creating a dedicated space for hardware and VR/AR startups at Northwestern
- ▶ Maintain the space and online knowledge base, update the website, demonstrate VR/AR to students and faculty, and assist with AV and IT for weekly events

UX Developer Intern, Oscillations Art

Jun 2018—September 2018

- ▶ Produced an interactive virtual reality (VR) experience in Unity3D and C# for submission to Sundance Film Festival and the Oculus Store
- ▶ Designed and spatialized audio for a 360° music video using the Reaper DAW and Facebook Spatial Workstation
- ▶ Integrated brain-computer interface technology into the Unity experience

Teaching Assistant, Radio, Television, and Film Department

Apr 2018—June 2018

- ▶ Provided in-class assistance for an undergraduate class (RTVF 376: Alternate and Virtual Reality Storytelling) and a graduate class (RTVF 553: Interactive Techniques/Emerging Forms) with Dr. Ozge Samanci
- ▶ Managed weekly VR Lab sessions to guide students in VR and answer questions about assignments

Programming Lead, Radio, Television, and Film Department

Nov 2016—Aug 2017

- ▶ Built “You are the Ocean,” an interactive art installation, using Unity3D, C#, and the Neurosky neuroheadset with grant funding from the Undergraduate Research Assistant Program
- ▶ Designed installation to allow participants to modulate a projected ocean simulation using their brainwaves
- ▶ Prepared and installed the work at domestic and international exhibitions
- ▶ Selected for exhibition at Pixel Festival 2018 (Bergen, Norway), BrainMind Summit 2018 (Stanford, CA), SIGGRAPH 2018 Art Gallery (Vancouver, BC), FILE 2018 (São Paulo, Brazil), Currents New Media 2018 (Santa Fe, NM), Plexus Projects (Brooklyn, NY), and CommFest 2018 (Evanston, IL); in review for additional exhibitions

Research Assistant, Computational Photography Lab

Nov 2015—Mar 2016

- ▶ Designed and constructed a calibration rig for testing a novel camera technology for PhD candidate Nathan Matsuda and Dr. Oliver Cossairt
- ▶ Implemented a CNC machine design and wrote preliminary G-Code to test the rig

AWARDS

- ▶ First place, 2018 INFORMS Innovative Applications in Analytics Award
- ▶ Recipient, Conference Travel Grant to SIGGRAPH 2018 and INFORMS Business Analytics Conference 2018
- ▶ Won awards at HackIllinois 2016 (University of Illinois) and Uncommon Hacks 2016 (University of Chicago)
- ▶ First place, 2015 Chicago Maker Challenge, sponsored by Motorola Mobility Foundation

PUBLICATIONS

- ▶ Özge Samanci and Gabriel Caniglia. You Are the Ocean. *Leonardo*, Volume 51, Issue 4, MIT Press.
- ▶ Mehmet Başdere, Gabriel Caniglia, Charles Collar, Christian Rozolis, George Chiampas, Michael Nishi, and Karen Smilowitz. SAFE: A Comprehensive Data Visualization System. Forthcoming 2018 in *Interfaces*.

SKILLS

- ▶ C#, JavaScript, CSS, HTML, Unity3D, Mapbox GL JS API; *Familiar*: Python, Java, C, C++
- ▶ UX testing, Adobe Photoshop, Adobe Illustrator, Microsoft Office suite, graphic design