



Nicholas Bucher

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Education

M.S. Computer Science, The University of Alabama (December 2018) **GPA: 3.778**
- Fully funded with stipend through the Graduate Research Assistant program.

B.S. Computer Science, The University of Alabama (May 2017) **GPA: 3.349**
- Fully funded with stipend through academic and engineering school scholarships.

Relevant Courses

Computer Vision, Computer Algorithms, Artificial Intelligence, Computer Graphics,
Introduction to Autonomous Robotics, Formal Languages and Machines,
Introduction to Operating Systems, Data Structures and Algorithms

Languages

Expert

- C#
- HTML/CSS
- JavaScript/TypeScript

Experienced

- C++
- PHP
- Matlab
- Java
- Python
- C

Work Experience

Assistant Research Engineer (January 2015 - Present)
The Center for Advanced Public Safety

- Designed UML diagrams, created components, and refactored the codebase for an Angular 6 web app.
- Applied JavaScript/Typescript standards from the official Angular 6 style guide and MDN Web Docs.
- Created an interactive data visualization tool to derive traffic data insights using Chart.js and JS Canvas.
- Developed a VR Driver Training Game in the Unity game engine for the Oculus Rift.
- Published multiple JavaScript/TypeScript packages to internal NPM software registry.

Founder, CEO (June 2018 - Present)

Restaurant On Mars Studios LLC

- Developed BOXES: Drone Delivery (Summer 2018), now on the Google Play Store.
- Developed Poodle Moon Jump (Spring 2019), now on the Google Play Store.
- Created a custom blog layout with Jekyll for restaurantonmarsstudios.github.io.

College Student Tech Specialist Senior (May 2017 - August 2017)

Lockheed Martin Corporation

- Developed a data visualization web app with data playback using Chart.js and Socket.io.
- Created and presented demos and tutorials on Git version control for a specific program's engineering development process, directed toward interdisciplinary teams of software and systems engineers.

Creative Campus Intern (August 2016 - May 2017)

- Pitched, organized, and executed Comicathon, an 18 hour comic making event, with a team of interns.
- Developed a 3D Kinect game for Zeitgeist (a tech-art exhibit) using Unity and the Kinect SDK.

Tools

Expert

- Unity
- Visual Studio
- Git
- Github
- Bitbucket
- Chart.js
- Photoshop
- Bootstrap
- JS Canvas

Experienced

- Unity Ads
- Unity In App Purchases
- Unreal Engine
- Cg
- ROS
- Unix Bash
- OpenGL/WebGL
- ZeroMQ
- Socket.io
- Angular 6
- Node.js
- JQuery
- Google Play Dashboard
- Blender
- Vim
- Windows CMD

Activities & Awards

The Video Game Development Club at The University of Alabama

- Founder, President (August 2016 - May 2017), and Treasurer (January 2018 - May 2018)
- Collaborated with the UA ACM Student Chapter to organize a 12-hour game jam event.

Hackathons and Competitions

- Winner of the University Libraries Virtual Reality Competition (September 2018 - December 2018)
 - + Presented at the UA Faculty Technology Showcase (February 2019)
 - + Collaborated with non-developers to design gameplay and designate team member responsibilities.
- Winner of the UA ACM Local Hack Day Best Web App Award (December 2017)
- Conducted a Unity workshop at the Crimsonhacks hackathon (March 2018)
- Fully funded travel to and participation in Hacking Arts at MIT (November 2016)
- Hackathon project portfolio (<https://devpost.com/nabucher>)

Personal and School Projects

- Developed an English-like programming language (January 2016 - May 2016)
- Developed and maintained www.nicholasbucher.com using HTML, CSS, Bootstrap, Javascript, and PHP.
- Github projects (<https://github.com/Charlesthebird>)

Publications

- Nick Bucher. 2017. Introducing Design Patterns and Best Practices in Unity.
ACM SE '17 Proceedings of the Southeast Conference (2017), 243-247.
DOI:<http://dx.doi.org/10.1145/3077286.3077322>

Organizations

- Theta Tau, A co-ed professional engineering fraternity
- Social Chair for the ACM, University of Alabama Student Chapter (January 2016 - May 2016)