

PROJECTS

- **21 Online:** A multiplayer Blackjack game. Players can create rooms and play Blackjack with up to six other users. The front-end was made in Angular and the back-end was made in Node.js. Colyseus, a multiplayer framework for JavaScript was used as a communication layer between the front-end and the back-end. The whole project is end-to-end tested using Cypress and the front-end is unit tested using Jasmine.
- **16TTAC-web:** A web-based code editor, compiler, and debugger for a custom 16-bit CPU. The debugger allows for inspecting the CPU's memory and stack in real time. The compiler's parser is made using Ohm, a JavaScript parser library. The editor is made in Angular and uses the Ace editor library.
- **Three Airboat Sim:** An airboat game. The player can control a small remote-controller airboat on a lake. It supports both keyboard and touch controls. It was made using Three.js, a WebGL library for JavaScript. Angular was used for the UI. The game uses WebGL shaders written in GLSL for it's water and terrain effects. It is end-to-end tested using Cypress and unit tested using Jasmine.
- **LED Matrix:** An Angular app and Arduino code for driving a 8x8 LED Matrix. After the user enters some text, the app outputs it on the LED Matrix. The user can also select the text speed and animation. It uses the Web Serial API to communicate with the Arduino.

PROGRAMMING SKILLS

- **Languages:** JavaScript, TypeScript, HTML5, CSS3
- **Technologies:** Angular, Git, Three.js, Jasmine, Cypress

LANGUAGES

- **Polish:** Native
- **English:** B2