# Sebin Gil

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#### **EDUCATION**

The University of North Carolina at Chapel Hill

2018-2022

- Bachelor of Science in Computer Science
- Minor in Mathematics, Minor in Statistics

#### Relevant Coursework

- Data Structures and Algorithms
- Computational Photography
- Computer architecture

- 2D Graphics
- Theory of computation
- Web Programming
- Higher Level Concepts; concurrency, scope, futures/promises, aspect oriented programming
- Introduction to Data Science

#### **WORK EXPERIENCE**

Kidzu Children's Museum

Sept 2021- Nov 2021

• Improved an activity to introduce coding to children by writing fun programs for toys such as Sphero SPRK+, Lego Mindstorm, and others.

#### **PROJECTS**

Reading Disability Web Application (Javascript)

2022

• Created a React website to treat children at risk for reading disabilities via early intervention. This personal project involved researching tested methods of treating reading disabilities in order to design and program scientifically informed games that train phonological awareness and improves word encoding and decoding. These games also help dyslexic adults improve their reading ability.

Computational Photography (Matlab)

2022

• Implemented image modification motifs such as blending, hybrid images, synthetic bokeh, and HDR. HDR is implemented via response function estimation, and given many images of the same scene with different exposure times, the program outputs a higher precision image.

## 2D Graphics Engine (C++)

2021

• Developed a 2D graphics engine in a similar design to the Skia graphics engine. The program implements shaders, gradients, tiling, and other transformations to allow the user to code complex images.

Lisp Interpreter (Java)

2021

• Built a comprehensive Lisp interpreter, including s-expressions, lambda functions, currying, and more.

### Park Finder (Javascript)

2020

• Created a Firebase Website for outdoor enthusiasts to find parks they may be interested in visiting. The website includes a comprehensive search engine that returns parks of interest and information on the parks. Searches can be filtered and parks may be saved to your favorites either locally or via the cloud.

#### **SKILLS**

- Languages: Java, Javascript, C++, Python, Matlab, SQL, R, C, Assembly, Prolog, Lisp, ML, Erlang
- Relevant Skills: HTML, CSS, MongoDB, Express, React, REST API, Node, Git