

Education

Princeton, NJ	Princeton University	Fall 2015 – May 2019 (Expected)
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Bachelor of Science in Engineering - Computer Science

- Current GPA: 3.52 of 4.0

Relevant Undergraduate Coursework

- Past: General Computer Science; Data Structures & Algorithms; Computer & Electronic Music through Programming; Multivariable Calculus; Electricity & Magnetism
- Current: Introduction to Programming Systems; Introduction to Logic Design; Linear Algebra
- Upcoming Spring (Tentative): Advanced Programming Techniques; Reasoning About Computation

Employment

Software Developer, Intern	Analytical Graphics Inc.	Summer 2016
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glTF Pipeline | JavaScript, Node.js | <https://www.npmjs.com/package/glTF-pipeline>

- Created command-line interface for client-end use of glTF-Pipeline stages.
- Implemented 3D-model cache optimization stage, increasing frame rates by up to 100% in vertex-bound cases.
- Implemented pipeline stage to generate normals for input models which lacked proper vertex normals.
- Refactored asynchronous (callbacks) code to use promises.

Cesium.js & Cesium Cloud | JavaScript | <https://cesiumjs.org/> | <https://cesiumjs.com/>

- Resolved bugs in the Cesium.js 3D globes library and Cesium Cloud front-end in support of the Cesium Cloud beta launch.

Grader & Tutor	Princeton University	Winter 2015 – Spring 2016
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General Computer Science | Java | <http://www.cs.princeton.edu/courses/archive/fall16/cos126/>

- Tutored and graded for Princeton University's introductory computer science course (COS 126).

Gifted & Talented Intern	National Security Agency	Summer 2015
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- Implemented various cryptographic methods in Cryptol (Haskell-based domain specific language).
- Produced \LaTeX literate specifications of Cryptol implementations.

Projects

WebSynth	http://becker.codes/WebSynth	Summer 2016
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- A dynamic subtractive synthesizer built into a single webpage.
- Stack: JavaScript, p5.js

Zenith	http://www.reachzenith.com/	Winter 2015
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- A health app for improving ones mental focus and emotional wellbeing.
- Developed with a team at Princeton University following a successful hackathon.
- Stack: Swift, Xcode, Firebase, Mixpanel

Selected Additional Experience and Awards

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- MIT Online Science, Technology, & Engineering Community Alumni
 - Northrop Grumman Engineering Scholar
 - Princeton University Laptop Orchestra Performer (PLOrk)

Languages and Technologies

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- Most experienced with JavaScript and Java.
 - Some experience with C, Python, Haskell, and Swift.
 - Comfortable in Windows, Mac OS, and most Linux distributions.