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Joshua Storm Becker

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Education

Princeton, NJ **Princeton University** **Fall 2015 – May 2019**

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

Research Assistant **Snyderphonics** **2016 – 2017 Academic Year**

Electronic Instrument Design & Development | C, JavaScript | http://www.snyderphonics.com/

- Assisting in the production of novel electronic instruments and installation pieces.

Software Developer, Intern **Analytical Graphics Inc.** **Summer 2016**

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.

STEM Intern **National Security Agency** **Summer 2015**

- 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**

- A dynamic subtractive synthesizer built into a single webpage.
- Stack: JavaScript, p5.js | Source: https://github.com/JoshuaStorm/WebSynth

Zenith **http://www.reachzenith.com/** **Winter 2015**

- 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 | Source: https://github.com/sebthedev/Zenith-iOS

Selected Additional Experience and Awards

- Princeton Computer Science Grader & Tutor - General Computer Science (COS126)
- MIT Online Science, Technology, & Engineering Community Alumni
- Northrop Grumman Engineering Scholar

Languages and Technologies

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