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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

- Overall GPA: 3.57 of 4.0 | Departmental GPA: 3.82 of 4.0

Relevant Undergraduate Coursework

- Past: General Computer Science, Data Structures & Algorithms, Programming Systems, Contemporary Logic Design, Linear Algebra, Advanced Programming Techniques, Reasoning About Computation
- Current: Operating Systems, Information Security, Introduction to Machine Learning

Employment

Software Development Intern **Optiver** **Summer 2017**

Automated Trading Systems | C++, Java | https://www.optiver.com/

- Implemented and coordinated firmwide protocol upgrades for sending orders to stock and options exchanges.
- Developed functionality within firm's inhouse simulated trading environment to seamlessly switch between market and generated data sources for trader training courses.

Research Assistant **Snyderphonics** **2016 – 2018 Academic Years**

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

- Developed firmware for electronic instrument control surface.
- Refactored web art installations for asynchronous loading, dropping page preload times from over a minute to seconds.

Software Development 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 the 3D model optimization pipeline.
- 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 that lacked proper vertex normals.

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

- Implemented cryptographic methods in Cryptol (Haskell based DSL) for formal verification.

Projects

Meetable **http://becker.codes/meetable/** **Spring 2017**

- A web application to simplify scheduling meetings.
- Integrates with users' Google Calendars to streamline time selection to only when users are available.
- Stack: Node.js, MongoDB, Bootstrap | Source: https://github.com/JoshuaStorm/meetable

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 simple iOS app for reminding individuals to focus on their emotional well-being.
- Stack: Swift, Firebase, Mixpanel | Source: https://github.com/sebthedev/Zenith-iOS

Languages and Technologies

- Most experienced with Java, C, and JavaScript.
- Some experience with C++, Python, Cryptol, and Swift.
- Proficient with Git version control.