Matthew Schwartz

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Work Experience

Epic Systems, Software Developer *August 2019 - Present*

- Develop and design the App Orchard website, a marketplace for third-party healthcare apps.
- Implement RESTful web APIs to expose health record data according to the HL7 FHIR standard.
- Pioneer transition of App Orchard site from MVC pattern to single-page React app.
- Design SQL database schema and optimize performance of data retrieval.

Education

Rice University, 2019

- B.S. in Computational Physics; Minor in Computational and Applied Mathematics.
- GPA: 3.86.

Relevant Projects

App Orchard Home Page, https://github.com/mzschwartz5/AO_HomePage

- An internal dashboard for employees to view consolidated information about customer app usage.
- **Technologies:** C#, TypeScript, HTML, CSS, MySQL, ASP.NET Core MVC, KnockOut, Bootstrap.

Fine-Grain Access Control to Web Services, https://github.com/mzschwartz5/AO_APIConfig

- A rule-based framework for filtering web service responses on request and response properties.
- **Technologies:** M (MUMPS), Caché, React Hooks and Redux, in addition to those listed above.

Morels, https://github.com/mzschwartz5/Morels

- A two-player strategy card game built in Unity3D, playable over a LAN connection.
- **Technologies:** C#, Unity3D, Blender, Mirror Networking.

Jewel3d, https://matthatter419.itch.io/jewel3d

- A modern 3D take on the classic game Bejeweled, made in 48 hours for the Retro Game Jam.
- **Technologies:** C#, Unity3D, Blender, Garageband

Research Experience

Defect Engineering In Semiconductors *January 2019 - May 2019*

Rice University Electrical Engineering Department, Houston, TX

• Imaged and analyzed defect-engineered transition metal dichalchogenides using STM techniques.

• Cleaned and applied Fourier transforms to data in MATLAB to resolve new electronic structures in the samples.

Theoretical Research in Solving Differential Equations Computationally *June 2018 - August 2018*

Rice University CAAM Department, Houston, TX

• Designed MATLAB programs to solve the shallow water equations using DGSEM.

• Mastered concepts of discontinuous Galerkin methods through extensive exploration of literature.