# Charlie McVicker

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## Education

Union College, Schenectady, NY. Expected Graduation June 2023.
Bachelor of Science in Computer Science. June 2023. GPA 4.0.

## Work Experience

**INDEPENDENT CONSULTANT** 1/20 to 6/20
*NumFOCUS - Austin, TX (Remote)*

- Designed and implemented performant and accessible React bindings for MathJax, an online typesetting engine for TeX and MathML. `https://www.npmjs.com/package/mathjax-react`.

**SOFTWARE INTERN/DEVELOPER** 3/19 to 6/19
*Looking Glass - Upstate NY / VT*

- Built custom UX flows on React Native with the Expo toolchain.
- Built Cloud data-flow for watershed basin classification and climate forecasting.
- Optimized WorldBank Climate Data powered backend, running serverlessly on the Google Cloud Platform.
- Created NoSQL Schema for CloudFirestore.
- Worked with a full-time mobile developer to connect Google Cloud tools to React Native.

**VOLUNTEER DEVELOPER** 6/17 to 8/19
*Dorset Historical Society - Dorset, VT*

- Designed and implemented interactive grave lookup web service with client-side Angular/Bootstrap responsive interface and Google Maps API with AirTable backend. `http://www.dorsetvthistory.org/cemetery`.
- Designed and implemented interactive database for Dorset Playhouse. Displays highly relational data in an intuitively hyperlinked way, mixing featured and list views of data items. `http://dorsetvthistory.org/players/`.

## Technical Skills

- Web Programming using HTML, CSS, and JavaScript. Framework experience: Bootstrap3, Angular, Vue.js, Vuex, React, GoogleCloudAPIs, Firebase/Cloud Firestore, jQuery, AJAX, TypeScript. Some experience in Redux and Saga.
- Mobile Development with ReactNative and Expo.
- Cloud Engineering: Google Cloud Platform serverless compute, NoSQL, hosting.
- Data Science / Machine Learning: Google Tensorflow, Python3, pandas, nltk, numpy, matplotlib.
- GPU Programming using OpenCL / OpenGL. Finished works include 3D engine for Chaotic Iterative Maps (Fractals), 3D voxel engine for artifical life research.
- Salesforce.com development. APEX, SOQL, VisualForce, and Lightning Framework.
- Comfortable on Mac and PC with Office and Google Productivity Suites.

Find my portfolio here: `https://charliemcvicker.github.io/about-me/`.

## Course Work

- CSC151: Data Structures.
- CSC320: Artificial Intelligence.
- CSC370: Programming Languages.
- MTH221: Cryptology.