George Kaplan

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Summary

Programming Languages & Frameworks: JavaScript / React, Elixir / Phoenix, Rust, Golang, LaTeX

Tools: Docker, Kubernetes, build tooling (e.g. linters, CI, Makefiles, package vendoring and publishing)

Credentials: TS clearance with Full Scope polygraph

Education

University of Maryland, College Park

Bachelor's of Science in Physical Sciences 2012 — 2016

- Concentrations in Atmospheric and Oceanic Science, Chemistry, and Geology

Experience

Visionist Incorporated

Engineer 3 November 2020 — present

- Maintained and enhanced a group of analytics for audio data using Elixir as the API layer and Rust to implement the algorithms for its performance benefits. This was made relatively painless using the *Rustler* library and the *Phoenix* framework.
- Fleshed out a system management interface from a minimal scaffold into a useful tool using the *Phoenix LiveView* library and *Bulma* CSS framework. This interface is used to dynamically allocate and customize our analytic components via *Helm*, and to monitor their performance, without needing to provide shell access to administrators or require them to understand *Kubernetes*.

Engineer 2 August 2018 — October 2020

- Helped scale a suite of applications for real-time geographic data analysis up from prototype to production, focusing on performance and reliability. Improved communication between the development team and our user base to implement a faster and more robust feedback loop.
- Built and maintained a richly interactive web form using *React* to give users fine-grained control over their analytic rules. Incorporated usability recommendations from our UX specialists, feature requests from our users, and technical requirements from our contract in each iteration of the design.
- Planned, contributed significant development time, and reviewed pull requests for our UI core library, a developer-organized effort to manage complexity in a suite of applications.

Nu-Tek Precision Optical Corporation

Engineer 1 May 2016 — August 2018

- Developed and maintained a proprietary MATLAB toolbox for processing a variety of optical data formats, supporting common manipulations such as Zernike decomposition, FFT analysis, and generation of corrective programs for computer-controlled polishing machines.
- Automated various administrative tasks such as printing work orders, tracking progress on each project, and generating customer documentation with *PowerShell* and LaTeX.

The Research Foundation for the State University of New York

Innovation and Partnerships Intern Summer 2014 and 2015

- Assisted in implementing the START-UP New York and Technology Accelerator Fund programs.
- Performed a detailed analysis on the performance of hundreds of businesses associated with SUNY campuses to support a program proposal effort.