

Skyler Arabak

Senior Software Engineer, Front-End/Full Stack

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skylera.github.io

FrameSlice.com

SUMMARY

15 years of industry experience making user interfaces in a number of languages and platforms. My passion is using software to reduce friction in all user interactions, increase accessibility through standards, and provide intuitive interfaces that enable users to achieve their goals. I've taught myself many languages and consider myself a generalist when it comes to stack focus.

EXPERIENCE

Rapid Silicon - Los Gatos, California (Remote)

April 2022 - Jan 2023

Principal Software Engineer

Responsible for helping design and implement a new ui for a startup looking to provide debug/design support to the EDA FPGA industry.

- Simplified UI creation for downstream clients by writing a UI factory that created Qt layouts from JSON, allowing UI generation without writing code.
- Developed a cascading settings system using JSON that integrated with the UI factory and a live Tcl layer, ensuring all layers of persistence were in sync while enabling user control through multiple interfaces.
- Automated UI testing by creating a framework that enabled scripting of UI tests in Qt via a Tcl script interface.
- Built a Qt interface that interacted with a 3rd party process and utilized its wish/Tcl interface for UI presentation/control, data retrieval, and creation of new functionality by installing new functions.
- Key contributor to UI portion of the open source FOEDAG project which is being used in the EDA industry.
- Environment: C++/Qt/Tcl/Python

Siemens EDA previously Mentor Graphics Corp - Wilsonville, Oregon

August 2010 - April 2022

Senior Software Development Engineer

UI programmer for Visualizer/ModelSim. Architect for framework-level UI features used in industry and by internal clients building upon the base Visualizer framework. The Visualizer framework has 10+ downstream clients, Visualizer itself has well over 50 windows.

- Consistently delivered industry-grade features for quarterly releases.

SKILLS

Industry Experience

C/C++, CSS, Linux/Windows Dev, Front-End and UI Dev, MySQL, Qt, Tcl/Tk, XHTML, OOP, large/international team collaboration, Software Development Life Cycle (SDLC), Stakeholder Management

Personal Experience

Arduino, AWS(ec2,s3,sdb), C#, Computer Vision, FastAi, FFmpeg, Firebase, Flask, Full Stack, In-App Purchases, iOS, JQuery, Javascript, Lua, Machine Learning, Next.js, Objective-C, PHP, Playwright, Push Notifications, Python, React.js (JSX, Hooks, Redux), Typescript, Yolo CV, Web Services

Tools

Confluence, Eclipse, Git, GitHub CI, Jira, Visual Studio, VS Code

General

Able to Self Teach, Quick to pick up new languages

LANGUAGES

English

- Reduced Qt UI creation and debugging time by creating a tool that allowed live introspection and editing.
- Collaborated with international, downstream clients and stakeholders to collect, design, and implement feature ideas as well as gather requirements for future releases.
- Developed creative solutions to work around limiting technologies and tools.
- Environments: C/C++, Qt, Tcl/Tk

Garmin AT – Salem, Oregon

August 2007 - July 2010

Software Development Engineer

Responsible for the UI programming of the GDU620 (consumer aircraft, multi-display GPS).

- Implemented Iridium Satellite Telephone and Reporting Interface in GDU620
 - Reduced customer costs by bit packing all metrics and heartbeat data.
- Reduced manual testing by writing on-unit, unit test system and UI to automate tests that were previously run by hand every release.
- Reduced memory limited color palette by creating histogram tool that highlighted near redundant colors.
- Environments: C, in-house UI framework, C#, Lua

Opus Creative – Portland, Oregon

Summer 2006

Web Developer

College internship that turned to a paid position when I advanced to a level where I was working on client accounts.

- Sliced mockups of sites and created underlying XHTML and CSS
- Environments: XHTML, CSS

EDUCATION

Oregon Tech – Klamath Falls, Oregon

BS in Software Engineering

4.0 in Major, 3.91 Total (out of 4.0)

Team Junior Project of hybrid car controller selected into an international Microsoft competition.

HOBBY PROJECTS

[FrameSlice.com](#)

- Client side video processing site for cropping video
- Built on Next.js, React, HTML, CSS, MUI, Vercel
- Avoids server traffic/uploads by processing video in client's browser

Video Processing Framework – Actively Developing (see [skylera.github.io/#features](https://github.com/skylera))

- FFmpeg video processing pipeline written in Python, hosted with flask, web front end in React.js for creating/testing filters and viewing debug data after parsing a video.
- Working on tools to help auto generate image classification models based on user created filters and results.
- Researching how to optimize image classification systems to make them more accessible to users without a powerful GPU.
- Developing and improving skills in React.js, Typescript, & Python. Some small experimentation with WebAssembly to explore moving heavier backend tasks off the server and into the user's browser.

Controller Interface

- Arduino wired to Xbox controller board traces to get and set user input.
- Communication over serial with a focus on 60fps accuracy for read and write.
- Wrote a C# interface to visualize a “script” of inputs that could be sent to the controller via the Arduino.

MutManager.com – Not longer Active

2015-2017

- Created a website that collected and graphed historical, in-game price data for the Madden NFL game.
- Learned PHP, Full stack development, and linux server admin
- Developed site/query caching methods to reduce user access to databases.