Skyler Arabak

Senior Software Engineer with15 years of industry experience. My passion is leveraging software to streamline user interactions, increasing accessibility through standards, and providing intuitive interfaces that exceed user expectations. I am a programming polyglot capable of teaching myself new languages and consider myself a generalist when it comes to stack focus.

✉ SkylerArabak@gmail.com 📞 503-422-6737 📍 Portland, Oregon 🐙 https://skylera.github.io

▬▬ WORK EXPERIENCE

Rapid Silicon

Principal Software Engineer   Apr 2022 - Jan 2023

- Responsible for helping architect a new UI for a startup providing debug & design tools for the EDA FPGA industry.
- Optimized UI creation for downstream clients by writing a UI factory that dynamically created Qt layouts enabling UI generation without writing code.
- Architected 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 designing a framework that enabled scripting of UI tests in Qt via a Tcl script interface.
- 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

Senior Software Development Engineer III   Aug 2010 - Apr 2022

- FrontEnd 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.
- Optimized Qt UI creation and debugging 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

Software Development Engineer   Aug 2007 - Jul 2010

- Responsible for the FrontEnd programming of the GDU620 (consumer aircraft, multi-display GPS).
- Implemented Iridium Satellite Telephone and Reporting Interface in GDU620
- Reduced Iridium customer costs by bit packing all metrics and heartbeat data reducing payload size by 70%.
- 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

Web Developer   Jun 2006 - Sep 2006
  - 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 developed semantic HTML and CSS
  - Environments: HTML, CSS

▬▬ PROJECTS

www.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 with WebAssembly in client's browser

Video Processing Framework
  - Actively Developing (see https://skylera.github.io/#features)
  - FFMPEG video processing pipeline written in Python, served with flask, web front end in Typescript 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 ways of optimizing image classification systems to make them more accessible to users without a powerful GPU.

MutManager.com - Not longer Active   2014 - 2016
  - Launched a website that collected and graphed historical, in-game price data for the Madden NFL game.
  - Achieved over 150,000 ad impressions
  - Learned PHP, Full stack development, and linux server admin
  - Developed site/query caching methods to reduce user access to databases.

▬▬ EDUCATION

Oregon Institute of Technology

BS in Software Engineering - 3.91 out of 4.0 - 3.91 GPA
  - 4.0 in major
  - Team Junior Project of hybrid car controller selected into an international Microsoft competition.

▬▬ SKILLS

  - Industry Experience: C, C++, CSS, HTML, Qt, Tcl, Tk, Object-Oriented Programming (OOP), Front-End and UI Dev, Quality Assurance (QA), Test Automation, MySQL, Linux/Windows Dev, International team collaboration, Software Development Life Cycle (SDLC), Stakeholder Management
  - Personal Experience: Arduino, AWS(ec2,s3,sdb), C#, Computer Vision, Fast.Ai, FFmpeg, Firebase, Flask, Full Stack, In-App Purchases, iOS, JQuery, Javascript, Lua, Machine Learning, Material UI (MUI), Next.js, Objective-C, PHP, Playwright, Push Notifications, Python, React (JSX, Hooks, Redux), Typescript, Yolo CV, Web Services