Richard Sheridan Appen

EDUCATION:

University of California San Diego - La Jolla, CA (2018 - 2022):

Bachelor of Science, Computer Science. *Minor*, Mathematics. *(in-progress)*   Major GPA: 3.98
177 Quarter Credits (Senior standing)   Overall GPA: 3.91

All Upper Division Computer Science & Engineering Courses Taken							
CSE 100	A+	CSE 140	A	CSE 141	A+	CSE 105	A+	CSE 130	A+
CSE 101	A+	CSE 140L	A+	CSE 141L	A+	CSE 110	A	CSE 132A	A

Saint Edward's High School - Vero Beach, FL (2014 - 2018):

Graduated Cum Laude   Weighted GPA: 4.0+

COMPUTER SKILLS:

Languages: C, C++, Python, Java, Verilog, System Verilog, Swift, MATLAB, Haskell, JavaScript, ReactJS, HTML, CSS, Bash, LaTeX, C#. **Assembly:** ARM, RISCV, MIPS. **Database:** SQLite, MySQL, JDBC.

Frameworks/Tools: Quartus, ModelSim, vi/vim, Eclipse, Visual Studio, IntelliJ, QT Creator, GODOT, make, JUnit, Ant, Git, GDB, Valgrind, XCode, Android Studio, React, Firebase, Vivado, TravisCI

EMPLOYMENT & EXPERIENCES:

Incoming Amazon Software Development Engineer Intern (Summer 2021):   Amazon, Seattle, WA
Software Engineering internship with Amazon during the upcoming summer.

Computer Science & Engineering Department Tutor (January 2021 - Present):   UC San Diego
Tutor for UCSD's Computer Science & Engineering, upper division "Advanced Data Structures" course (CSE 100). I hold weekly lab hours to answer questions and help guide students on the programming assignments.
Tools: C++

Classifying Computations on Multi-Tenant FPGAs (October 2020 - Present):   UC San Diego
Research working under Kastner labs to measure the potential security risks of side channel power analysis on multi-tenant Field Programmable Gate Arrays.
Tools: Vivado, Verilog, Python

Hyundai Car Salesman (Summer 2019):   Route 60 Hyundai, Vero Beach, FL
Learned how to sell anything, not just cars to customers, and how to deal with varying levels of product interest.

PROJECTS:

Heep (Summer 2020): Co-founder and Lead Front End Developer of *Heep*, a peer to peer encrypted social network and platform designed for data security. Intended to address data miss-use by contemporary social networks. Fully functional social media aspects of adding friends, posting images, reacting to friend's images, etc...
Written in Swift using Xcode   Website Link

Covid Code (Fall 2020): Software Development Lead of *Covid Code*. Users take a daily survey to determine how likely it is that they have Covid-19. Scan QR codes to see other's risk level or display your own code. Add friends to instantly see their risk level or use the heat map to see all people in the world that are "High Risk" in our system
Written in Swift using Xcode   Website Link

Space Force (Spring 2020): Co-founder of a space exploration game. Travel as a space ship in an endlessly generated universe full of planets. Explore using planets' gravitational pull to slingshot you around.
Written in GODOT Script & Python & C++ using GODOT   Website Link

Fully Functional MIPS Processor (Summer 2020): Functional 5-Stage MIPS processor that uses data forwarding and a hazard detection unit to run programs utilizing parallelization to achieve low CPI (cycles per instruction).
Written in Verilog & System Verilog using Quartus & ModelSim   Website Link

Market Observer (Fall 2019 - Winter 2020): Project to help track trends in stock market data. Logs certain data and then displays corresponding percentages of success and other useful information like when to buy stocks/options.
Written in C++ & QMake using QT   Website Link

AWARDS:

UC San Diego Provost Honors, Charles F. Clark Character Award, AP Scholar with Distinction, 2nd place in Florida's State Envirothon