

Stuart Hunt

me@stuarthunt.dev
https://stuarthunt.dev

SUMMARY

I am a software developer with years of diverse experience in full stack development, backend, frontend, web, computer graphics, game engines, deep learning, and quantum computing. I am seeking a position in prototyping or product development (remote, or local in Raleigh/Durham/RTP) that will fuel my passion for innovation, and make effective use of my diverse technical background in software.

EDUCATION

- **MS - North Carolina State University** Raleigh, NC
Master of Computer Science; GPA: 4.00 Expected November 2020
- **BS - North Carolina State University** Raleigh, NC
Bachelor of Science, Computer Science and Engineering, Minor in Physics; GPA: 4.00 – Valedictorian December 2019

EXPERIENCE

- **Qualcomm Technologies, Inc.** San Diego, CA
GPU Compiler Intern Summer of 2020
 - **DirectX:** Built a real time ray tracing demo using DirectX 12, including indirect lighting, shadows, and reflections
 - **Performance:** Conducted experiments to analyze the performance characteristics of DirectX Ray Tracing
- **SAS Institute Inc.** Cary, NC
Cognitive Computing Intern Summers of 2017 and 2019
 - **Social Media Prediction:** Built text+image deep learning models that predict the number of likes a potential social media post will receive with 15% higher accuracy than a human
 - **Social Data Analysis:** Implemented data analysis tools for processing bulk visual and textual social media
 - **Sentiment Classifier:** Trained a multi-category sentiment classifier with BERT from Twitter emoji usage
 - **Quantum Computing:** Studied quantum computing and led weekly textbook discussion groups
 - **Deep Learning Calibration:** Developed a method for calibrating model probabilities to be statistically accurate*Year Round Cognitive Computing Intern* May 2016 - January 2017
 - **Patent Lead Inventor:** Patented a deep learning model for classifying and locating overlapping patterns present in one-dimensional data for the purposes of generating natural language descriptions; Application #20180211153*Platform Deployment Intern* Summers of 2014, 2015
 - **BOSH Extension:** Built a Go BOSH extension that allows deploying anywhere, instead of just to the cloud
 - **Distributed Log Analysis:** Implemented an AWS log collection/analysis tool, with a web GUI for management
- **International Business Machines Corp. (IBM)** Raleigh, NC
Software Intern Summer of 2018
 - **Quantum Language:** Prototyped a quantum language parser that allowed for the use of Bra-Ket notation
 - **Quantum Information:** Took an online MITx Quantum Information Science II course
 - **Data Dashboard:** Led an intern team to build a business data analysis/visualization web app for data insights

PROJECTS

- **Amalgom:** Architected & built a voxel game engine using Rust & WebGPU with 42x the render distance as Minecraft
- **QALC (Quantum Calculator):** A Bra-Ket notation based language compiler built with MLIR and LLVM in C++
- **Distributed Ledger:** Contributed to a Rust distributed ledger for use in a prototype peer to peer video game network
- **Reinforcement Learning:** Trained an AlphaGO based AI to play a strategic board game called Pentago with Python
- **GPU Iter:** Programmed a prototype Rust GPU compute library that focussed on usability and efficiency
- **Beer Money:** Co-founded an LLC and launched a full stack odd jobs marketplace app & website built with Elixir

SKILLS

- **Languages:** Rust – Elixir – Go – Python – Ruby – Typescript/Javascript – Java – C – C# – C++ – HTML/CSS
- **General Experience:** Git, Docker, Unix, Agile, Compilers, Deep Learning, Graphics, Quantum Computing

HONORS

- Graduated Valedictorian & Summa Cum Laude – Computer Science Honors – University Honors Program – Tau Beta Pi Honors Society – Phi Kappa Phi Honors Society – Accelerated Bachelor/Master Program – Dean's List every semester – Albright Entrepreneurs Village – Charles D. & Patricia D. Lamb Scholarship – Duke Energy Scholarship