Stuart Hunt

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Education

- **MS - North Carolina State University** — Raleigh, NC
  Master of Computer Science; GPA: 4.00 — *Expected December 2020*
- **BS - North Carolina State University** — Raleigh, NC
  Bachelor of Science, Computer Science and Engineering, Minor in Physics; GPA: 4.0 — *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. Implemented direct lighting, indirect lighting, shadows, and reflections
  - **Performance**: Conducted experiments to analyze the performance characteristics of DirectX Ray Tracing
  - **Vulkan**: Learned Vulkan's ray tracing extensions to do detailed comparisons with DirectX
- **SAS Institute Inc.** — Cary, NC
  Cognitive Computing Intern — *Summers of 2017 and 2019*
  - **Social Media Prediction**: Built text+image deep learning models that predict (with super-human ability) the number of likes a potential social media post will receive
  - **Analysis**: Developed statistical analytic tools for processing bulk visual and textual social media data using SAS's CAS
  - **Sentiment**: Created a multi-category sentiment classifier with BERT using training data derived from Twitter emoji usage
  - **Quantum Computing**: Studied quantum computing and led weekly learning groups
  - **Deep Learning Calibration**: Developed a method for calibrating AI model probability outputs to be statistically accurate

  Year-Round Cognitive Computing Intern — *May 2016 - January 2017*
  - **Patent Lead Inventor**: Patented a novel deep learning model for classifying and locating overlapping patterns present in one-dimensional data for the purposes of generating natural language descriptions
    U.S. Patent Application 20180211153, Filed January 24th 2017, Published July 26th, 2018, Appl. No. 15/658566
    Inventors: Stuart Hunt, Samuel Leeman-Munk, Richard Crowell.

  Platform Deployment Intern — *Summers of 2014, 2015*
  - **BOSH Extension**: Built a POC extension of B.O.S.H. that extended its functionality from cloud-based deployment only, to allow deploying to any hardware
  - **Distributed Log Analysis**: Prototyped an AWS based log collection/analysis tool, with a web GUI for managing workers
- **International Business Machines Corp. (IBM)** — Raleigh, NC
  Software Intern — *Summer of 2019*
  - **Quantum Information**: Participated in an online MITx Quantum Information Science II course throughout the summer.
  - **Quantum Language**: Built a POC quantum language parser that allowed for the use of Bra-Ket notation for computation
  - **Data Dashboard**: Led a small intern team to develop a business data analysis/visualization app for live data insights

Skills

- **Languages**: : Rust – Elixir – Go – Python – Ruby – Typescript/Javascript – Java – C – C# – C++ – HTML/CSS – Elm – Crystal – Nim (and always excited to learn more!)
- **General Experience**: : Agile Software Development – Deep Learning – Quantum Computing – Computer Graphics – Language Design – Game Engine Design – Backend Development – Frontend Development – GPU & Distributed Computing – Continuous Integration – Leadership – Project Management
- **Misc Technology Experience**: : AWS – Docker – Tensorflow/PyTorch/Caffe/Keras – WebGPU – DirectX – OpenGL/WebGL – Phoenix (Elixir) – Rocket (Rust) – React & React Native – OpenCL – Sinatra (Ruby) – Blockchain/dag – Unix – DenseNet – BERT – ELMO – YOLO

Honors

- Graduated Valedictorian & Summa Cum Laude – Computer Science Honors member – NCSU Honors Program member – Tau Beta Pi Honors Society Member – Phi Kappa Phi Honors Society Member – Accelerated Bachelor's Master's Program Member – Dean's List for all semesters completed – Albright Entrepreneurs Village Member – Charles D. & Patricia D. Lamb Scholarship – Duke Energy Scholarship