Stuart Hunt

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https://stuarthunt.dev

Summary

Master's-educated software developer with six years of experience in full stack development. Known for exceptional problem-solving skills, consistently overcoming the team's most complex technical challenges and delivering impactful results. Dedicated to creating robust solutions across diverse technical environments. Seeking contract opportunities to apply my expertise and contribute to meaningful projects.

Education

- **MS - North Carolina State University** — Raleigh, NC
  Master of Computer Science; GPA: 4.00 — *December 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

- **Rocket Hunt Studios** — Cary, NC
  Co-Founder — *2023-present*
  - **Game Engine Developer**: Co-developed a purpose-built 3D game engine featuring GPU-accelerated physics-based active ragdolls, efficient voxel storage and rendering systems, peer-to-peer networking, a novel SIMD-accelerated lookup-table based Simplex noise generator, and a non-blockable render architecture.
- **Reaktive** — San Francisco, CA
  Engineering Lead 2021-2023, Consultant 2023-present — *2021-present*
  - **Ultra-Low Latency Remote Desktop**: Led the engineering of a remote desktop solution with performance so fast that users could not distinguish it from a native computer, even in low-latency, high-performance applications like competitive gaming.
  - **Windows Driver Development**: Implemented video capture and encoding in a Windows driver, as well as mouse and keyboard emulation via a Windows kernel driver.
  - **Networking Protocol**: Designed and implemented a low latency video network protocol, including dropped-packet error correction to eliminate re-transmission latency.
  - **UI Development**: Developed a procedurally animated UI layout engine, delivering a sleek and contemporary user experience.
  - **Resource Allocation Server**: Created a fault-tolerant control server responsible for resource allocation across all VMs, enabling seamless scaling of client computers.
- **Qualcomm Technologies, Inc.** — San Diego, CA
  GPU Compiler Intern — *Summer of 2020*
  - **Nvidia RTX**: Worked with the GPU compiler team to prototype Nvidia's RTX technology and conduct performance characterization. Delivered insights and reports to enhance team strategy.
- **SAS Institute Inc.** — Cary, NC
  Cognitive Computing Intern — *Summers of 2014, 2015, 2016, 2017, 2019*
  - **Patent Lead Inventor**: Patented a deep learning model for time series pattern recognition to generate natural language descriptions; Application #20180211153.
  - **Data Analytics**: Prototyped social media analysis and prediction techniques using deep learning.
- **International Business Machines Corp. (IBM)** — Raleigh, NC
  Software Intern — *Summer of 2018*
  - **Quantum Programming**: Prototyped a quantum programming language incorporating Bra-Ket notation, enhancing expressiveness by resembling traditional mathematical notation.

Skills

- **Languages**: Rust – C – C++ – Python – Java – Go – Typescript/Javascript/HTML/CSS – Elixir – Ruby

Honors

- Valedictorian & Summa Cum Laude – Charles D. & Patricia D. Lamb Scholarship – Duke Energy Scholarship – Computer Science Honors – University Honors Program – Tau Beta Pi Honors Society – Phi Kappa Phi Honors Society – Accelerated Bachelor/Master Program