Luke Hartman

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Education

- **Gonzaga University** — Spokane, WA
  B.S. in Computer Science — Aug. 2016 – May 2020
  Mathematics Minor

Experience

- **T-Mobile** — Bellevue, WA
  Software Engineer, Network Technology Engineering Cloud Solutions — September 2020 - Present
  - Built a web app for managing hosts, clusters, and VMs running on T-Mobile's networks.
  - Created tooling for testing VMs.
  - **Skills**: Python, JavaScript, SQL, React, Next.js, Sanic, VMware vSphere, Git
- **T-Mobile** — Bellevue, WA
  Software Engineer, Intern — Summer 2020
  - Automated virtualization and server deployment processes
  - Created a server management dashboard for T-Mobile's cloud infrastructure
  - Deployed and configured virtual machines for various product teams at T-Mobile.
  - **Skills**: Python, JavaScript, Flask, SQL, React, VMware vSphere, Grafana, Prometheus, Git
- **Adaptive Biotechnologies** — Seattle, WA
  Software Developer Intern, Computational Biology — Summer 2019
  - Refactored client-facing Python and R statistical tools to be more performant and developer-friendly
  - Migrated ImmunoSEQ analyzer tools to Python 3, created Dockerfiles for each tool
  - Built python package to handle configuration, logging, and sample querying for each tool usage on https://clients.adaptivebiotech.com/
  - Extended compatibility of internal data pipeline tools to use both Amazon S3 and Azure Blob Storage
  - **Skills**: Python, R, Docker, Bash, Linux, AWS, Azure, JIRA, Git, numpy, scipy, matplotlib
- **Bolt Network** — Seattle, WA
  Full Stack Developer Intern — Summer 2018
  - **Responsibilities**: Build out the user-facing features of BoltOS; Precisely implement prototypes and mockups; Create user input validation;
  - **Skills**: Javascript, React, Node.js, MongoDB, SASS, Git, Heroku
- **Vista Properties, LLC** — Tacoma, WA
  Summer job working on a maintenance crew for commercial properties and apartments. — 2012 - 2017

Programming Skills

- **Languages**: C++, Python, C, Java, JavaScript, Node.js, SQL, Elixir, Solidity, Haskell;
- **Libraries/Frameworks**: React, flask, OpenGL, OpenCV, ROS, SFML, SQLite3, WebGL, etc;
- **Tools**: Docker, AWS Lambda, Vagrant, Git, CMake, LaTeX, yarn, npm, etc;

Projects

- **GUADR**: Year-long Gonzaga senior design software engineering project. We built an on-campus autonomous food delivery robot for Gonzaga's campus using state-of-the-art computer vision and mobile robotics. August 2019 - May 2020
- **MyPL**: An interpretted, statically-typed, programming language built on top of Python3. The implementation consists of a parser, lexer, type checker, and interpreter. February 2019
- **Button Math Trivia**: A fun Amazon Alexa trivia game programmed in NodeJS that makes use of Amazon's new echo buttons and AWS Lambda. August 2018
- **Open-source Contributions to Kleros**: Created smart contracts for arbitrating disputes in Solidity for *kleros*, an open source Ethereum project. June 2018

Relevant Coursework

- **Computer Science/Engineering**: Algorithms & Abstract Data Structures, Computational Modeling, OOP & Event Driven Programming, Digital Logic, Microcomputer Architecture & Assembly Programming, Computer Graphics, Operating Systems, Natural Language Processing, Speech Recognition, Organization of Programming Languages, Algorithm Analysis & Design, Software Engineering, Information & Coding Theory, Data Visualization.
- **Mathematics**: Discrete Structures, Calculus I,II,& III, Linear Algebra, Fundamentals of Mathematics, Statistics for Experimentalists, Chaos Theory & Dynamical Systems.

Recent Happenings

- **Spokane Mayor's Cyber Cup Coach**: I helped organize and run this year's Spokane Mayor's Cyber Cup security competition where local computer science students battle each other in capture the flag and war games. This involved writing challenges and helping students work their way through the competition. Spokane - 2020
- **DEFCON 27**: I had lots of fun learning about EMV, PCB Design, and hardware hacking at DEFCON this Summer by participating in contests and attending talks. Las Vegas - August 2019
- **Adaptive's CompBio Journal Club**: I participated in Adaptive's internal computational biology journal club where I presented on the paper, *Immunosequencing identifies signatures of cytomegalovirus exposure history and HLA-mediated effects on the T cell repertoire by Emerson RO et al.* Seattle - Summer 2019
- **Spokane Mayor's Cyber Cup Winner**: I helped my team win Spokane's annual security competition where local computer science students battle each other in capture the flag and war games. I'm excited to organize next year's event! Spokane - February 9, 2019
- **DEFCON 26**: Participated in workshops and challenges that taught me about RFID standards, industrial control Systems, and networking. Las Vegas - August 2018
- **Buena Vista University 6th Annual CTF Winner**: A nail-biting victory by our team representing Gonzaga's computer science department at the BVU's capture the flag competition. Spokane - April 7th, 2018