Shelby Doolittle

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EXPERIENCE

Pine Street Labs — Remote (HQ New York, NY)
Principal Software Engineer — *October 2022 - Feb 2024*

- **walletOS**: walletOS is a common interface to every web3 cryptocurrency network. I was a lead contributor to the design of this interface and development of integration with Ethereum. I also improved various aspects of the project resulting in dramatically increased productivity for myself and my team.
- **Query System**: I proposed, designed, and implemented a high scale indexing and notification system that worked with dozens of blockchains and processed thousands of jobs per second on single digit machines. The system achieved low response latency to supported application queries and coworkers were able to easily implement new chains in the system.

Fractal — Remote (HQ Berlin)
Head of Protocol — *April 2021 - September 2022*

- **Protocol**: The Fractal Protocol is a greenfield web3 project to improve user data privacy while providing access to that data to websites that did not generate that data. I defined the interface, architecture, and technical operation of the protocol. I was initially hired to be the tech lead for the project, but was promoted to being in charge of the whole project after a few months. I managed a team of 4 people.

Google — Pittsburgh, PA
Software Engineer Level 4 — *October 2018 - April 2021*

- **Shopping Product Curation Tools**: Shopping Product Curation Tools builds tools for human operators to manually improve the quality of Google Shopping's product data. I built a task assignment system that processed O(10,000) assignments / day with zero latency from submission to potential assignment. I also designed and built a system to use simple high-scale operator judgements to determine if two retailer offers were for the same product.

51 — Midlothian, VA
Co-Founder — *January 2017 - Present*

- **Interactive Spaces**: Interactive Spaces is a suite of software and hardware that allows escape room designers to integrate electronics into their escape rooms easily with previously impossible features included.
- **Warehouse 29**: A VR/Live Action/Escape Room experience. Players fight a sentient AI that has taken over a VR museum dedicated to Edgar Allan Poe. I built all of the VR gameplay and management infrastructure.

Google — Mountain View, CA
Software Engineer Level 4 — *June 2015 - March 2017*

- **OneDiff**: OneDiff is a Google internal tool for diffing large batches of structured data. I worked on the frontend visualization, focusing on rendering and presenting >10GB diffs so that other engineers could understand how their data changed.
- **Process Consulting**: OneDiff was routinely lauded for responsiveness to feedback from internal stakeholders due to my efforts. I was regularly asked to consult on other teams to help improve their process.

Pivotal Labs — Mountain View, CA
Software Engineer — *June 2014 - June 2015*

- **Samsung Milk Video (Following Feed)**: When I joined the Milk Video project, the following feed always had at least 4 engineers triaging defects and performance issues. With dedicated disagreement and straightforward engineering, I was able to dramatically simplify the whole system to zero defects and able to handle new features quickly.
- **Barnes & Noble NookPress**: Print-on-demand service allowing people to order 1-1000 copies of a custom printed book.
- **Hawq (Development Tools)**: Built CI infrastructure to reduce effort of manual maintenance.

AgilQuest — Richmond, VA
Software Engineer — *Oct 2013 - June 2014*

- **Forum**: Cloud-based booking software for workspaces, and meeting and conference rooms.

Expertise

- **Software Engineering Process**: Extreme Programming, Continuous Integration, Continuous Delivery, Pair Programming, Standups, Retrospectives
- **Programming**: Algorithms, Data Structures, Web Development, Distributed Systems, Databases
- **Languages**: Rust, JavaScript, Java, Ruby, SQL, HTML, CSS, C++, C#
- **Technologies**: Substrate, Angular, PostgreSQL, Rails, Docker, Git, Godot, Unity3D
- **Artificial Intelligence/Machine Learning**: Neural Networks, Reinforcement Learning, Genetic Algorithms, Keras
- **Blockchains**: Cryptography, Bitcoin, Blockchains