Randall Blake

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Experience

Full Stack Engineer at Fencing Star   Jan. 2021 - Present
- Built a full-stack app that tracks user's progress using Docker, Python/Flask, and PostgreSQL.
- Deployed and maintained code on DigitalOcean's cloud server running Linux.
- Integrated Stripe's API to manage customer payments and SendGrid to send invoices.
- Created `fencingstar.rkblake.com`, which received positive feedback from users.

Software Engineer at IXIA/Keysight   Mar. 2018 - Aug. 2020
- Developed C applications to extract data from network traffic at 100Gib/S and parsed TCP/UDP packets and other Layer 7 protocols.
- Utilized Robot and traffic generators to write QA and regression tests for debugging network protocols.
- Set up Docker/Kubernetes environment to run product on virtual switches and earned the team their first $1M quarter by providing new features for customers.

Software Engineering internship at Apcon   Jan. 2016 - Sep. 2017
- Conducted static code analysis and regression testing to find and fix bugs.
- Migrated software to the cloud and optimized Linux installation by reducing package size.
- Expanded server back-end and front-end using Adobe Flex and C++.

Education

University of Texas at Dallas   2013-2017
- Bachelor's of Science in Computer Science 2017

Projects

Fencing Tournament Organizer Web Service   2017-2019
- Built a website in Python/Flask and SQLite3 for organizers to run tournaments offline or online.
- Developed a database to store results, allowing competitors to view live scores and brackets.
- Used by the Southwest Intercollegiate Fencing Association for local tournaments.

Flat-Panel Airborne Radio Control   2017
- Completed semester-long senior design project in a team of 6 with academic advisor.
- Worked with Sponsor, Rockwell Collins, to develop software for radio control and maintenance.
- Created an interface to automate testing of on-board radios and report outcome.

Solar System Simulator   2017
- Simulated orbital mechanics of planets around a star using Newtonian physics.
- Utilized OpenGL and SDL2 to display graphics that the user can navigate around in.
- (`github.com/rkblake/SolarSim/`).

Real-Time Strategy AI Competition   2010-2012
- Worked in a 2-person team on a Real-Time Strategy AI in C++ that played against other AI.
- Created an AI that managed resources and up to 200 units to defeat an opponent.
- Dortmund University of Technology's Computational Intelligence and Games (CIG) 2011 Starcraft AI competitor (`ls11-www.cs.tu-dortmund.de/rts-competition/starcraft-cig2011`).

Skills

- Programming Languages: C/C++, Python, Javascript, HTML, Erlang, Lua, .NET, Java …
- Frameworks: Flask, OpenGL, SDL2, Node.js, Vue.js, PostgreSQL, MongoDB …
- Technical Skills: git, SVN, GDB, REST, Jenkins, Docker, Kubernetes, Linux, AWS, Jira, Agile …

Miscellaneous

- Former captain of college fencing club who coached and lead teams to victories at state competitions.
- Participated in multiple Game Jams programming games in 48-hours.
- Competed in Cyber security competitions with UTD's Computer Security Group.
- Ask me (`github.com/rkblake`) about my other projects!