Randall Blake

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Experience

Junior Software Engineer at IXIA/Keysight 2018-2020

- Developed C application to extract data from network packets at 100Gib/S
- Handled the parsing of TCP/UDP packets and other Layer 7 protocols
- QA tested regression tests using Robot and in-house traffic generator
- Set up Docker/Kubernetes environment to run product on virtual switches
- Earned the team their first $1M quarter by providing new features for customers

Software Engineering internship at Apcon 2016-2017

- Found and fixed bugs by performing static code analysis and regression testing
- Migrated software to the cloud and improved 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 Journal and Ranking Website 2021-2022

- Used Docker, Python/Flask, and PostgreSQL to build a full-stack app that tracks user's progress
- Deployed and maintained code on DigitalOcean's cloud server running Linux
- Managed customer payments with Stripe's API and emailed invoices using SendGrid
- (fencingstar.rkblake.com)

Fencing Tournament Organizer Web Service 2017-2019

- Coded in Python/Flask and SQLite3 for organizers to run tournaments offline or online
- Stores results in a database that allows competitors to view live scores and brackets
- Used by the Southwest Intercollegiate Fencing Association for local tournaments
- (github.com/rkblake/FencingTournamentTool)

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
- Used 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 Real-Time Strategy playing AI in C++ that played against other AI
- Created an AI that manages 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, Linux, AWS, Jira, Agile …

Miscellaneous

- Participated in 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!