

**Experience**

- Junior Software Engineer at IXIA/Keysight 2018-2020
- Developed C application to extract data from network packets
  - Handle 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 virtually
  - Earned the team their first \$1M quarter
- Software Engineering internship at Apcon 2016-2017
- Found and fixed bugs, performed static code analysis
  - Migrated software to cloud and improved Linux installation
  - Developed server back-end and front-end using Adobe Flex and C++

**Education**

- University of Texas at Dallas 2013-2017
- BS Computer Science 2017

**Projects**

- Fencing Journal and Ranking Website 2021-2022
- Used Docker, Flask, and PostgreSQL to build a full-stack web app
  - Deployed and maintained on DigitalOcean's VPS
  - Managed customer payments with Stripe
  - ([fencingstar.rkblake.com](http://fencingstar.rkblake.com))
- Fencing Tournament Organizer Web Service 2018
- Developed in Python and Flask to run fencing tournaments
  - Stores results in a database to allow for live viewing of results
  - Used by the Southwest Intercollegiate Fencing Association
  - ([github.com/rkblake/FencingTournamentTool](https://github.com/rkblake/FencingTournamentTool))
- Solar System Simulator 2017
- Simulated orbital mechanics using Newtonian physics
  - Used OpenGL and SDL2 to display planets and stars
  - ([github.com/rkblake/SolarSim/](https://github.com/rkblake/SolarSim/))
- RTS AI Project 2010-2012
- Worked in 2 person team on Real-Time Strategy playing AI
  - Created an AI that manages units and resources
  - Dortmund University of Technology's Computational Intelligence and Games (CIG) 2011 Starcraft AI competitor ([ls11-www.cs.tu-dortmund.de/rts-competition/starcraft-cig2011](http://ls11-www.cs.tu-dortmund.de/rts-competition/starcraft-cig2011))

**Skills**

- Languages: C/C++, Python, Javascript, Erlang, Lua ...
- Frameworks: Flask, OpenGL, SDL2, Node.js, Vue.js, PostgreSQL, MongoDB ...
- Other Skills: git, gdb, Jenkins, Docker, Linux, AWS, Jira, Agile ...

**Miscellaneous**

- Participated in Game Jams programming games in 48-hours
- 10 Years competitive Fencing, previous captain of the UTD Fencing Club
- Competed in Cyber security competition with UTD's Computer Security Group
- Ask me ([github.com/rkblake](https://github.com/rkblake)) about my other projects!