JORDAN RICHARDS

Systems Software Engineer

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in jordan-alexander-richards

EXPERIENCE

Senior Software Engineer
RBC Capital Markets

📅 Apr 2018 – Sep 2023   📍 Orlando, FL

Senior software engineer working on the trusted execution components of an always-encrypted offers service.
- Developed a C++20 microservice from initial design to implementation and integration
- Helped integrate with Java microservices
- Cryptography: ECDH key exchange, key wrapping, encryption
- Microsoft SQL Server
  - Utilized the new feature, always-encrypted columns with secure enclaves
  - Worked with team at Microsoft to work out bugs in the ODBC driver
- Trusted Execution Environment: Built on top of mystikos
  - Tight memory and performance constraints
  - Built upon limited existing tooling for debug and analysis
  - Deep dive into Linux kernel internals to debug memory mapping in mystikos

Team Competition Programming
University of Central Florida

📅 Aug 2018 – Mar 2021

UCF varsity programming team member, participating in 3 ICPC regional contests.
- Challenging algorithmic design puzzles with tight constraints
- Developed skills working with a team under pressure

EDUCATION

B.S in Computer Science
University of Central Florida

📅 May 2022   📍 Orlando, FL

- Computer Vision focus
- Math minor (Linear Algebra, Partial Differential Equations)

STRENGTHS

- Algorithm Design and analysis
- Parsing complex systems and code-bases
- Open Source Software/Hardware
- Linux application development

TOOLS

C++ C Python Java Golang
Kubernetes Pulumi Docker Podman
Ostree
Linux Fedora ArchLinux
GDB Ghidra CMake GoogleTest
OpenCV Protobuf Messagepack