

Forest McKinney

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WORK EXPERIENCE

Platform Software Developer Co-op

September 2024 – April 2025

URBN (Nuuly)

Philadelphia, PA

- Migrated various application queries from Kafka key-value stores to Postgres to reduce overhead cost. Wrote K6 tests to evaluate and optimize queries and API endpoint response times.
- Generated a new Kafka topic, wrote producers and consumers, and updated existing logic in order to reverse the dependency flow of a clothing inspections service, eliminating extraneous database syncing and expanding functionality.
- Migrated StatefulSet applications to a Deployment-style integrated with ArgoCD, simplifying management complexity and reducing scaling costs while significantly improving update speed and rollback capability.

Full-Stack Software Developer

September 2023 – September 2024

Apex Fintech Solutions (Silver Management Group)

Philadelphia, PA

- Worked with a scrum team of 10 to fix bugs, develop new features, and improve runtime for tax and wealth applications in Java, PostgreSQL, and AngularJS. Investigated and resolved high priority client issues on production releases.
- Wrote AWS Lambda functions to provide valuable data on company AWS service usage which helped reduce company expenses; extended Lambda messaging capability to improve automated communication efficiency for DevOps.
- Rewrote an inefficient statistics calculator to provide invaluable real-time statistics on millions of entities to users in seconds rather than minutes, greatly increasing operations efficiency.
- Adjusted domain restrictions on tax entities to meet FINRA compliance requirements, preventing unauthorized entities from accessing sensitive data.
- Extended bulk-edit capabilities on accounts to cut down on the number of manual data fixes required for changes.

EDUCATION

Bachelor of Science: Computer Science

Expected Graduation: June 2027

Drexel University

Philadelphia, PA

PROJECTS

Miscellaneous Programming

October 2020 – Present

Personal Work

Sun Valley, ID / Philadelphia, PA

- Conceptualized and programmed 2D RPG games in C++ from scratch, leveraging OOP principles to enhance code scalability and maintainability.
- Expedited personal work by writing programs and scripts in C++/Bash to improve overall productivity.
- Researched, devised, and implemented custom audio manipulation algorithms using C++ to create a high quality reverb plugin for music production software.

Synthesizer Design and Construction

March – June 2022

Sun Valley Community School

Sun Valley, ID

Developed a handheld synthesizer from scratch, connecting physical input via an Arduino program to generate MIDI values and wrote a Ruby-based program for synthesizing notes and modifiers, allowing real-time music creation and manipulation.

2D Game Development

January – June 2023

Drexel University

Philadelphia, PA

Led a team in developing a 2D pixel art platform game using the Godot engine featuring an infinite world, custom items, and an engaging storyline. I primarily handled under-the-hood game mechanics, writing intricate inventory systems and detailed procedural world generation. The project was managed using Agile/Scrum methodologies to ensure efficient progress and effective team collaboration.

TECHNICAL SKILLS

Programming Languages

- C/C++
- Java/Kotlin
- Python
- Bash
- HTML/CSS
- JavaScript/TypeScript
- SQL

Productivity Software

- Visual Studio, VSCode
- IntelliJ IDEA, Eclipse IDE
- PgAdmin
- Postman

Project Management

- Git & GitHub/GitLab
- Scrum/Agile
- CI/CD pipelines
- Jira/Confluence/Slack