

NORTHBRIDGE MICROSYSTEMS, INC.

Python Developer – Legacy Modernization & .NET Migration

Help a small engineering-driven company modernize a core product from .NET to Python.

Location: Hybrid – Portland, OR (U.S. only)

Type: Full-time

Small Corporation (≈45 employees)

Team: Software Engineering

ABOUT THE ROLE

Northbridge MicroSystems is a small, profitable corporation that builds specialized monitoring and automation tools for light industrial and research environments. Our flagship product is currently implemented as a monolithic .NET application. We are beginning a multi-year effort to modernize this stack with a Python-based backend and a more modular architecture.

We are looking for a **Python Developer** who can both **provide technical guidance on moving from .NET to Python** and **take ownership of a large legacy codebase**: refactoring, improving test coverage, and incrementally introducing modern patterns and tooling. Experience with basic front-end technologies (**HTML**, **vanilla JavaScript**, and classic DOM/event-driven UIs) is a significant plus.

You will be the go-to Python engineer in a small team of mixed-skill developers (C#, desktop UI, and embedded). This is a hands-on role that combines coding, technical decision-making, and mentoring.

WHAT YOU'LL WORK ON

- Analyze our existing **.NET/C# desktop application** and design a staged strategy to migrate core business logic and services into **Python**.
- Take ownership of an existing **Python-based service layer** (partially implemented), refactor it for clarity, reliability, and maintainability, and fill in missing features.

- Improve the current system's architecture by **decomposing tightly coupled components** into smaller, testable modules and services.
- Introduce or expand **automated testing** (unit, integration) and continuous integration around the Python components.
- Collaborate with existing .NET developers to define clear **APIs and data contracts** between legacy and new components.
- Where needed, implement or update **simple UIs** (internal tools, configuration pages, status dashboards) using **HTML, CSS, and vanilla JavaScript**.
- Profile and optimize Python code paths that are **performance-sensitive**, balancing speed with readability.
- Document architecture decisions, migration plans, and guidelines for other engineers to follow as the modernization continues.
- Provide practical **mentoring and guidance** to teammates who are experienced in .NET but newer to Python.

REQUIRED QUALIFICATIONS

- **3+ years of professional experience with Python** in production environments (back-end services, tooling, or data-heavy systems).
- Strong understanding of **Python application structure**, including virtual environments, packaging, dependency management, and logging.
- Demonstrated experience **refactoring large or legacy codebases**: breaking up monoliths, improving readability, and introducing tests.
- Solid understanding of **object-oriented design**, modularization, and clean code practices (e.g., SOLID principles, separation of concerns).
- Hands-on experience with **RESTful APIs** or service-oriented architectures (e.g., using Flask, FastAPI, or similar frameworks).
- Comfortable reading and reasoning about **.NET / C#** code, even if you are not a deep .NET expert.
- Experience writing and maintaining **automated tests** in Python (pytest or similar).
- Familiarity with **Git-based workflows** (feature branches, code review, pull requests).
- Strong communication skills and willingness to **explain design decisions** to both technical and less-technical stakeholders.
- Ability to work in the U.S. without sponsorship and be available for some **on-site collaboration in Portland, OR** (roughly 1–2 days per week).

NICE-TO-HAVE SKILLS

- Front-end experience with **HTML, CSS, and vanilla JavaScript**, including DOM manipulation and browser event handling.
- Background in **.NET / C#** application development (WinForms, WPF, or ASP.NET) or experience interfacing Python with .NET.
- Experience designing and working with **REST APIs** between legacy and new systems.
- Knowledge of **SQL databases** (e.g., PostgreSQL, SQL Server) and basic schema design or query optimization.
- Familiarity with **CI/CD pipelines** (GitHub Actions, Azure DevOps, GitLab CI, or similar).
- Exposure to **message queues or pub/sub** systems (RabbitMQ, Redis, MQTT, etc.).
- Experience in **industrial automation, instrumentation, or data acquisition** environments.

HOW WE WORK

Northbridge MicroSystems operates as a **small, engineering-led corporation** where individual contributors have a visible impact on the product and on our customers' day-to-day operations.

- A **tight-knit engineering team** of fewer than 15 developers, with short decision chains and direct access to product stakeholders.
- **Hybrid work**: quiet office space in Portland for lab work and collaboration, with flexibility for remote days.
- Emphasis on **incremental modernization**, not big-bang rewrites: we value stability for our customers alongside better technology.
- Realistic scope and timelines; we prioritize long-term maintainability over short-term hacks.

COMPENSATION & BENEFITS

- **Salary range**: \$110,000 – \$135,000 DOE
- Annual performance-based bonus (profit-sharing style).
- Medical, dental, and vision coverage; 401(k) with company match.
- Generous PTO and paid holidays.
- Budget for conferences, courses, or books related to your role.

KEY TECHNOLOGIES YOU'LL TOUCH

Python 3.x

.NET / C# (read & integrate)

REST APIs

Flask or FastAPI

pytest

Git

SQL (PostgreSQL / SQL Server)

HTML & CSS

Vanilla JavaScript

Windows & Linux environments

CI/CD tooling

How to Apply

Send your resume (and optionally a short note or link to a portfolio / GitHub) to

careers@northbridgemicro.com with the subject line *"Python Developer – Legacy Modernization"*.

If you have examples of refactoring work, migration projects, or code that shows your approach to structuring Python applications, we'd love to see them.

Apply via Email