Senior Software AI Engineer

HEJ higheredjobs.com/search/details.cfm

Southern New Hampshire University is a team of innovators. World changers. Individuals who believe in progress with purpose. Since 1932, our people-centered strategy has defined us - and helped us grow a team that now serves over 180,000 learners worldwide.

Our mission to transform lives is made possible by talented people who bring diverse industry experience, backgrounds and skills to the university. And today, we're ready to expand our reach. All we need is you.

Make an impact - from near or far

At SNHU, you'll have the option to work remotely in the following states: Alabama, Arizona, Arkansas, Delaware, Florida, Georgia, Hawaii, Idaho, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Mississippi, Missouri, Nebraska, New Hampshire, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, West Virginia, Wisconsin and Wyoming.

We ask that our remote employees have access to a reliable internet connection and a dedicated, properly equipped workspace that is free of distractions. Employees must reside in, and work from, one of the above approved states.

The opportunity

Southern New Hampshire University (SNHU) is looking for an experienced Senior Python Backend Engineer. You will report directly to the Vice President of AI Engineering and you will engineer the backend systems that power our agentic AI learning platform, empowering human-centered learning for the age of AI.

As a backend and platform engineer with data engineering skills, you'll build the infrastructure that powers our AI learning platform. You'll also ensure our Data Science team has the systems they need to measure the effectiveness and guide personalization.

You will work remotely from any of our approved States #LI-Remote

What you'll do:

- **Agentic backend and data platform****
- You will design and implement scalable APIs for agent orchestration and learner interaction
- You will build data pipelines that feed agent evaluation and continuous improvement cycles
- You will create event streaming infrastructure for real-time learner interaction analysis
- You will ensure data quality and accessibility for training and evaluating learning agents

- You will improve data infrastructure for cost and performance in close coordination with Data and ML teams
- This is a remote position

Measurement and evaluation

- Design and implement rigorous evaluation frameworks to measure agent performance and improve cycles
- Develop LLM evaluation processes and perform error analysis to identify systemic improvements for agentic learning systems
- Support instrumentation that makes evaluation relevant (metrics, traces/logs, and analysis workflows)

On-call and incident response

- Participate in on-call rotation and incident response for learning platform reliability
- Contribute to runbooks, postmortems, and reliability improvements as we evolve our operating model

What we're looking for:

- 5+ years production Python experience at scale
- AWS expertise (Lambda, DynamoDB, S3, Glue, and Athena)
- Experience with a relational database such as MySQL, PostgreSQL, or Oracle
- Experience with agentic AI architectures and evaluation frameworks
- Data pipeline development (streaming and batch)
- Infrastructure as Code experience (CDK, Terraform)
- Production SaaS experience, including participation in on-call / incident response
- Experience in GitHub Actions or similar CI/CD platforms
- Experience communicating updates and resolutions to customers and other partners)

AI-Augmented Development:

- Active user of AI development tools (GitHub Copilot, Cursor, Claude Code, Codex) with personal projects and evolution over the past 12 months
- Demonstrated examples of AI-augmented productivity gains
- Enthusiasm for pushing boundaries of AI-assisted engineering

We believe real innovation comes from inclusion - where different experiences, perspectives and talents are celebrated. So if you're wondering whether SNHU is right for you, take the leap and apply. You might be just the person we're looking for.

Compensation

The annual pay range for this position is $113,908.00 - $182,287.00. Actual offer will be based on skills, qualifications, experience and internal equity, in addition to relevant business considerations. We expect this position to be hired in the following target hiring range $125,868.00 - $170,293.00.

Exceptional benefits (because you're exceptional)

You're the whole package. Your benefits should be, too. As a full-time employee at SNHU, you'll get:

- High-quality, low-deductible medical insurance
- Low to no-cost dental and vision plans
- 5 weeks of paid time off (plus almost a dozen paid holidays)
- Employer-funded retirement
- Free tuition program
- Parental leave
- Mental health and wellbeing resources