Software Developer - AI and Data Integration Specialist

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Job Description
Position Summary:

Colorado State University (CSU) is seeking a Software Developer - AI and Data Integration Specialist to support the National Park Service (NPS) in modernizing digital services for visitor engagement, mapping tools, and operational data workflows. This role is ideal for a recent graduate with strong coding skills and an interest in backend development, automation, and real-time data systems in a public service environment.

The developer will contribute to an Agile product team, supporting API development, backend system design, and the integration of AI-powered data workflows into web and mobile applications.

Unit Description:

The NREL is a research and teaching unit at Colorado State University with a mission "to ensure the sustainability of the Earth's ecosystems through the generation and application of new knowledge." The department's interdisciplinary, ecosystem research promotes collaborations among disciplines and across fields of expertise at CSU and throughout the world. As a soft-money research unit, this role is critical to ensure adequate funding to sustain its vital role in the research community both locally and across the globe.
Key Responsibilities:

API Development and Backend Engineering (35%)

- Support the development and maintenance of RESTful APIs that power mapping, alerts, and visitor information tools.
- Work with senior developers to build scalable backend services using technologies such as .NET, Node.js, or Python.
- Help integrate backend services with mobile and web applications, ensuring performance and data reliability.

AI and Data Automation (30%)

- Contribute to data transformation and cleaning pipelines, assisting with the integration of ML models for validation and automation.
- Implement scripts and backend services that support AI-enhanced workflows, including real-time data updates and predictive features.
- Support the deployment of ETL processes across cloud platforms such as Azure or AWS.

Integration and Optimization (20%)

- Collaborate on integrating backend systems with NPS apps and internal dashboards.
- Assist in system performance testing, error logging, and documentation of integration workflows.

Agile Development and Documentation (15%)

- Participate in sprint planning, retrospectives, and Agile ceremonies with cross-functional teams.
- Document code, API behavior, and data workflows to support collaboration and long-term sustainability.
- Communicate technical updates to the broader team and stakeholders as needed.

Qualifications:

Recent graduate in Computer Science, Software Engineering, or a related field with demonstrated proficiency in Python, JavaScript (Node.js), or C#/.NET. Familiarity with backend service development, REST APIs, and basic DevOps tools. Possess a strong interest in learning about AI integration, cloud computing, and geospatial systems.

Preferred Qualifications:

- Exposure to Agile or Scrum-based workflows through coursework, internships, or projects
- Experience with data transformation or mapping technologies such as Leaflet.js or GeoJSON
- Familiarity with Git, cloud platforms, or CI/CD pipelines

Professional Development:

This role offers strong mentorship and exposure to real-world development practices, cloud-based backend systems, and AI-enhanced automation. The developer will gain experience contributing to high-impact government technology initiatives, building production-grade APIs, and participating in Agile delivery cycles.

Salary Range

$40.00-$45.00

Required Application Documents

To apply, please upload the following applicant documents. Ensure your materials fully address the required and preferred job qualifications of the position. Please note, applicants may redact information from their application materials that identifies their age, date of birth, or dates of attendance at or graduation from an educational institution.
Resume/CV

Employee Benefits

Colorado State University is not just a workplace; it's a thriving community that's transforming lives and improving the human condition through world-class teaching, research, and service. With a robust benefits package, collaborative atmosphere, and focus on work-life balance, CSU is where you can thrive, grow, and make a lasting impact.

- Review our detailed benefits information here.
- Explore the additional perks of working at CSU here.
- For the total value of CSU benefits in addition to wages, use our compensation calculator.
- Lastly, click here for more information about why Fort Collins is consistently ranked in the top cities to live in!

Background Check Policy Statement

Colorado State University strives to provide a safe study, work, and living environment for its faculty, staff, volunteers and students. To support this environment and comply with applicable laws and regulations, CSU conducts background checks for the finalist before a final offer. The type of background check conducted varies by position and can include, but is not limited to, criminal history, sex offender registry, motor vehicle history, financial history, and/or education verification. Background checks will also be conducted when required by law or contract and when, in the discretion of the University, it is reasonable and prudent to do so.

EEO

Colorado State University (CSU) provides equal employment opportunities to all applicants for employment and prohibits discrimination and harassment of any type without regard to race, color, religion, age, sex, national origin, disability status, genetics, protected veteran status, sexual orientation, gender identity or expression, or any other characteristic protected by federal, state or local laws.