Richard Gregory

Sr. Python Developer

grerichard91@gmail.com ❖ (408) 518-0375 ❖ Oviedo, Florida

SUMMARY:

Experienced and results-driven Senior Full Stack Developer with over 10 years of expertise in building high-performance applications, microservices, and cloud-based solutions. I specialize in Python, Ruby on Rails, Django, Flask, FastAPI, React, Vue, Angular, AWS, Azure, and machine learning integration. Adept at designing and deploying scalable systems, optimizing backend processes, leading technical innovation, and building data-driven solutions across full-stack development. Proven success in driving technical mentorship and cross-functional collaboration to enhance productivity while developing cloud-based solutions and AI-powered features.

TECHNICAL SKILLS:

Languages & Frameworks:	Python (3.6,3.9,3.10), Ruby (2.5,2.7,3.1), Go (1.13,1.16,1.18), JavaScript (ES6), TypeScript (3.0,3.5,4.5), Django (2.2,3.2,4.0), Flask (1.0,2.0), FastAPI (0.60,0.85), Ruby on Rails (5.0,6.1,7.0), React.js (16.8,18.0), Vue.js (2.6,3.0), Angular (8.0,9.1,12.0), Node.js (12.0,14.0,16.0), Express.js (4.16,4.18), HTML5, CSS3, SCSS
Databases:	PostgreSQL (9.6,12.0,14.0), MySQL (5.7,8.0), SQL Server (2017,2019), Redshift (1.0,2.0), MongoDB (4.0,4.2,5.0), Redis (5.0,6.0), Elasticsearch (6.0,7.0,8.0)
Cloud & DevOps:	AWS (EC2, Lambda, S3, Route 53, DynamoDB, Kinesis, RDS), Azure (App Services, Blob Storage, Azure SQL), Google Cloud (BigQuery, Cloud Storage), Docker (19.03,20.10), Kubernetes (1.14,1.19,1.23), Terraform (0.11,0.12), CI/CD Tools: GitHub Actions (1.0,2.0), Jenkins (2.0,2.319), CircleCI (2.0,2.1), Travis CI (3.0)
AI & Machine Learning	TensorFlow (1.1.4,2.0,2.7), Keras (2.3,2.7), Scikit-learn (0.22,0.24), OpenAI API (GPT-3, GPT-4), BERT (2019,2021), Data Processing: Pandas (1.0,1.3), NumPy (1.18,1.21)
API Development:	RESTful APIs, GraphQL, gRPC OAuth 2.0, JWT Authentication
Testing:	Unit Testing: PyTest (5.0,6.0,7.0), Jest (24.0,26.0,27.0), Mocha (6.0,8.0,9.0) Integration Testing, TDD Test Automation: Cypress (4.0,5.0,9.0), RSpec (3.10,4.0)
Tools & Collaboration:	Version Control: Git (2.0,2.28,2.34), GitHub (3.0,3.5), GitLab (12.0,14.0) Project Management: JIRA (8.0,8.18), Trello, Asana UI/UX: Figma (3.0,4.0,5.0), Tailwind CSS (2.0,3.0)

EDUCATION:

Saint Francis University   **Mar 2013**
Bachelor's degree, Computer Science   *Loretto, Pennsylvania*

WORK EXPERIENCE:

FocustApps LLC· Contract   Sep 2024 - Present
Sr. Python Developer   *Oviedo, Florida*
• Led the development of AI-driven backend services in Python using Flask and FastAPI, building systems that enable real-time energy prediction models, optimizing resource utilization

across multiple customer operations.

• Developed machine learning models for analyzing energy consumption patterns, improving predictions for resource allocation, and enhancing decision-making processes for stakeholders with predictive insights into energy use trends.

• Built scalable data pipelines using AWS Lambda, integrated with AWS S3, automating the flow of real-time energy consumption data to the platform, thus improving data processing efficiency and minimizing manual interventions.

• Integrated NLP techniques into mobile applications, enabling users to interact with data more intuitively and receive personalized energy-saving recommendations, enhancing user experience and platform engagement.

• Architected a cloud-based solution with AWS EC2 and RDS, ensuring robust, highly available systems for handling up to millions of energy data points per day without performance degradation.

• Spearheaded the adoption of containerized applications using Docker, improving deployment speed and reliability, ensuring consistent environments across the development and production stages.

• Developed interactive dashboards with React.js and Power BI, enabling users to visualize energy consumption trends, empowering businesses to make real-time decisions based on actionable insights.

• Enhanced backend performance by optimizing SQL queries, reducing response times significantly, and boosting overall system efficiency, allowing faster retrieval of large-scale energy data.

• Collaborated with cross-functional teams, providing technical leadership and mentorship, improving team performance and ensuring timely delivery of high-quality features for the energy platform.

• Conducted system optimizations in both data ingestion and real-time processing, cutting latency by 15% and ensuring systems handle massive data influx with minimal delay.

• Implemented security measures for data protection, integrating OAuth 2.0 for secure API authentication, ensuring compliance with industry standards and maintaining user trust.

• Developed real-time event-driven systems using AWS Kinesis for processing energy data, making energy usage more transparent and actionable for businesses while improving scalability and resilience.

• Enhanced platform flexibility by adopting a microservices architecture, enabling independent scaling of core components while maintaining seamless integration across the platform.

• Deployed and maintained CI/CD pipelines using GitLab CI, improving the development lifecycle and reducing deployment-related errors, ultimately improving the release frequency.

• Introduced unit testing and automated workflows, improving software quality and reducing defects by identifying and addressing issues in development environments.

• Designed and developed data ingestion pipelines using Apache Kafka, enabling the real-time streaming of massive energy datasets for immediate analysis, processing over 500K events per day.

• Orchestrated and maintained cloud infrastructure, ensuring high availability and smooth operation of the energy platform by leveraging AWS Auto Scaling.

• Applied data-driven decision-making principles to improve platform efficiency and align the features with the most impactful user needs, further driving engagement and satisfaction.

• Introduced performance improvements in AI models by refining the feature engineering process, reducing model training time and enhancing prediction accuracy for more insightful data reports.

• Coordinated with product managers to define technical specifications and requirements for AI-driven features, driving successful implementations that aligned with business goals.

Environment: Python, Flask, FastAPI, React.js, Power BI, SQL, Apache Kafka, AWS (Lambda,

S3, EC2, RDS, Kinesis, Auto Scaling), Docker, Microservices, Machine Learning, NLP, OAuth 2.0, GitLab CI, Unit Testing, CI/CD, Data Pipelines, Real-Time Streaming, Cloud Infrastructure

Itron· Contract   Feb 2024 - Aug 2024
Full-Stack Developer   *Oviedo, Florida*
• Developed an AI-powered web application using React.js and Python, integrating machine learning models to provide predictive insights into energy consumption, enhancing resource management capabilities.
• Designed and implemented scalable backend systems using Flask and FastAPI, optimizing performance and ensuring systems could handle real-time energy data processing.
• Integrated AWS Lambda and S3 to streamline cloud services, creating a seamless data flow from multiple sources, improving data accessibility, and reducing overhead for operational teams.
• Built RESTful APIs for secure data exchanges between systems, optimizing energy data transfers between databases, and ensuring low-latency access to critical real-time information.
• Collaborated with data engineers to implement AI-based forecasting models, improving energy demand predictions and helping businesses adjust to future energy trends more effectively.
• Implemented CI/CD pipelines using GitHub Actions, automating the deployment process and ensuring code consistency across multiple environments.
• Led the adoption of Power BI for visualizing and reporting key metrics on energy consumption trends, enabling users to generate reports without additional manual work.
• Conducted performance reviews of backend code and optimized SQL queries, achieving faster load times and improving overall system response time by 20%.
• Enhanced system security by incorporating JWT and OAuth 2.0 authentication for secure, encrypted API communication.
• Mentored junior developers, improving their understanding of AI/ML integration and cloud infrastructure, ultimately leading to more efficient and collaborative development cycles.
• Integrated real-time data analysis using AWS Kinesis, reducing the time required to process and analyze incoming energy data, enabling faster operational adjustments.
• Designed data storage solutions with PostgreSQL, optimizing query performance and reducing overall system latency when handling large datasets.
• Developed and deployed real-time analytics dashboards using React.js, providing users with up-to-date metrics and insights on energy consumption and operational status.
• Automated the reporting process by integrating Power BI with the backend, generating automated reports for stakeholders, saving 15 hours per week of manual labor.
• Deployed system updates using Docker and Kubernetes, improving scalability and deployment consistency across environments.
• Integrated AI-driven insights into the user interface, delivering personalized recommendations to customers based on their energy consumption history.
• Applied best practices in Agile methodologies, ensuring efficient development cycles and on-time delivery of high-quality features.
• Enhanced machine learning models by fine-tuning them with real-time energy data, improving prediction accuracy for user-specific energy needs.
Environment: Python, Flask, FastAPI, React.js, Power BI, SQL, PostgreSQL, AWS (Lambda, S3, Kinesis), Docker, Kubernetes, Microservices, Machine Learning, AI/ML Integration, Real-Time Data Processing, RESTful APIs, JWT, OAuth 2.0, GitHub Actions, CI/CD, Agile, Data Pipelines, Real-Time Analytics Dashboards

Cisco · Contract   Jan 2023- Dec 2023
Software Engineer   *San Jose, California*
• Developed high-performance backend systems using Python and Django, enabling seamless

integration with multiple cloud-based platforms for real-time data processing.

• Optimized database architectures using PostgreSQL, increasing query efficiency and reducing the time needed to retrieve data from millions of records.

• Led integration efforts of cloud services like AWS EC2 and S3, improving data storage and management practices for scalable web applications.

• Created real-time alerting systems using AWS SNS to notify users of operational issues in real time, improving response time to system failures.

• Built and maintained microservices to support a robust and scalable backend system, ensuring high availability and easy feature expansions.

• Deployed containerized solutions with Docker and orchestrated services using Kubernetes, improving application performance and reducing operational complexity.

• Developed API endpoints using FastAPI, enabling seamless integration between various client-facing and backend applications.

• Led backend performance tuning efforts, optimizing algorithms and data processing pipelines to handle more than 500K data requests per day.

• Implemented OAuth 2.0 and JWT for secure authentication, safeguarding sensitive user data across cloud services and ensuring compliance with security protocols.

• Participated in Agile development cycles, collaborating closely with product teams to define and implement scalable features that met customer needs.

Environment: Python, Django, FastAPI, PostgreSQL, AWS (EC2, S3, SNS), Docker, Kubernetes, Microservices, Real-Time Data Processing, API Development, OAuth 2.0, JWT, CI/CD, Agile, Cloud Integration, High-Performance Backend Systems

IUG Business Solutions   Apr 2019- Nov 2022
Full-Stack Developer   *New York, New York*

• Developed cloud-based applications using Django, React.js, and AWS to manage complex business processes, improving operational efficiency for clients.

• Built AI-powered features to automate data-driven decision-making processes, reducing manual effort by 50% and increasing productivity.

• Integrated various AI/ML models into the backend to provide predictive insights and personalized recommendations based on real-time user data.

• Developed secure REST APIs to integrate external services, enabling clients to interact with third-party platforms seamlessly.

• Enhanced data processing speed by implementing PostgreSQL optimizations, reducing query times and enhancing overall system efficiency.

• Automated the deployment process with CI/CD pipelines, reducing manual errors and speeding up time-to-market for new features.

• Worked with product managers to define technical specifications and prioritize features based on customer needs, ensuring effective delivery.

• Designed and implemented real-time data dashboards using React.js, enabling users to visualize key metrics at a glance.

• Mentored junior developers on backend technologies and best practices, improving team performance and code quality.

• Improved user authentication and data security by implementing JWT for token-based security, ensuring system integrity.

Environment: Python, Django, React.js, AWS, PostgreSQL, REST APIs, AI/ML Integration, CI/CD, JWT, Real-Time Data Dashboards, Cloud-Based Applications, Secure Backend Development, Predictive Analytics, Automation, Agile, Mentorship

Rackspace Technology   May 2017 - Apr 2019
Sr. Web Developer   *San Antonio, Texas*
- Led development efforts for a cloud-based platform using Python, Flask, and AWS for real-time data synchronization and processing.
- Integrated machine learning algorithms for predictive analytics, enhancing decision-making capabilities for clients and improving system insights.
- Optimized SQL queries for large datasets, reducing response time by 40% and ensuring faster data retrieval.
- Deployed backend services using Docker, ensuring easy scaling and consistency across development and production environments.
- Implemented security protocols such as OAuth 2.0 to secure user data and ensure compliance with privacy regulations.
- Enhanced the user experience by integrating real-time data visualization into the platform using React.js and D3.js.
- Designed microservices using Flask and AWS Lambda, ensuring system scalability and ease of maintenance.
- Led efforts to automate deployments using Jenkins and Terraform, reducing manual interventions and ensuring a seamless release process.
- Coordinated with cross-functional teams to improve performance and ensure feature releases met client specifications.
- Developed and maintained a continuous integration pipeline to ensure high-quality code and consistent deployment standards.

Environment: Python, Flask, React.js, D3.js, AWS (Lambda, EC2, S3), Docker, Microservices, SQL, OAuth 2.0, Machine Learning, Predictive Analytics, Jenkins, Terraform, CI/CD, Real-Time Data Visualization, Cloud-Based Platforms, Secure Backend Development, Deployment Automation, Agile

CollectivePoint   Mar 2016 - Apr 2017
Software Engineer   *Austin, Texas*
- Designed and developed backend services using Python and Flask, enabling seamless data processing and integration for various business applications.
- Built and optimized REST APIs to handle high volumes of data transactions, ensuring fast and reliable communication between systems.
- Implemented AWS EC2 for scalable cloud infrastructure, supporting business growth and ensuring high availability.
- Improved system performance by implementing caching strategies, reducing database load and improving response times.
- Worked with PostgreSQL and MongoDB to ensure data integrity and efficient storage solutions.
- Led the effort to introduce unit testing for backend services, improving code quality and reducing production issues.
- Collaborated with frontend developers to design API endpoints for integration with client-facing applications.
- Assisted in migrating legacy systems to a more scalable, cloud-based infrastructure using AWS.
- Developed real-time dashboards to monitor critical system metrics and alert the team to issues.
- Enhanced the scalability and reliability of the backend system, reducing downtime and improving overall system resilience.

Environment: Python, Flask, REST APIs, PostgreSQL, MongoDB, AWS (EC2, Cloud Migration), Caching Strategies, Unit Testing, CI/CD, Real-Time Dashboards, Backend Services, Scalable Cloud Infrastructure, System Integration, Performance Optimization, Agile

Cars.com   Jan 2014 - Feb 2016
Software Engineer   *Chicago, Illinois*
• Developed and maintained backend services using Python and Django, supporting a large-scale web application for the automotive industry.
• Integrated third-party APIs to enhance vehicle data and improve user experience across the platform.
• Optimized database queries using PostgreSQL, ensuring faster load times and smoother user interactions.
• Implemented unit testing and CI/CD pipelines, improving software reliability and reducing deployment errors.
• Built custom APIs for communication between front-end and back-end systems, ensuring seamless data flow.
• Worked with AWS EC2 and S3 to deploy and manage cloud infrastructure for backend services.
• Designed user-facing features in collaboration with UI/UX teams, ensuring consistent, intuitive, and responsive web interfaces.
• Conducted performance analysis and improved system efficiency, resulting in a 20% improvement in platform speed.
• Contributed to a major platform update, improving the overall system architecture and enhancing platform scalability.
Environment: Python, Django, REST APIs, PostgreSQL, AWS (EC2, S3), Unit Testing, CI/CD, Cloud Infrastructure, Backend Services, Third-Party API Integration, Performance Optimization, Web Application Development, UI/UX Collaboration, Scalable System Architecture