Jack de la Motte

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Experience

Software Engineer Feb. 2024 – Present
Relativity Space *Long Beach, CA*

- Led the design, development, deployment, and continual support of a complex internal tool for sensor fleet and calibration tracking from gathering requirements from numerous users across disciplines to full stack development and deployment supporting daily use by approximately 100 users and tracking tens-of-thousands of sensors and calibrations while also integrating with appropriate ground software and mission-assurance systems via an internal REST API. Utilized React, TypeScript, FastAPI, Python, Pytesseract, Beanie, MongoDB, Docker, GitLab, Helm, and Terraform.
- Supported test technicians and specialists on site with PCB installation, ground software debugging, and building bespoke software automation to ensure operational efficiency.

Software Engineer Jan. 2023 – Present
Rebellion Defense *Remote*

- Led the development of a host tagging system from design to production, leveraging a multi-parameter classification model, Django, and React. Upon delivery, feature displayed an experimental accuracy rate of 95%, and equips users with a better understanding of their attack surface.
- Integrated a finely-tuned LLM for the development of an AI Red-Team Assistant feature that explains successfully emulated attacks and exploits to non-expert stakeholders.
- Built a watchdog service that asynchronously self-destructs an EC2 sensor upon network scan completion. Deployed service across hundreds of sensor deployments resulting in thousands of dollars worth of compute resources saved.
- Designed and deployed a mission-critical daemon service for user authentication and activity monitoring, meeting key government compliance requirements.
- Pioneered a major architectural re-design of four core IAM services eliminating over 6,000 lines of unmaintained bash with the use of Terraform modules significantly reducing technical debt and increasing build efficiency.

Software Engineering Intern June 2022 – Sep. 2022
New Relic *Portland, OR*

- Reconstructed an existing web integration test harness to use a lightweight console app resulting in a 60% reduction in average test completion time
- Automated daily analysis of 5 critical metrics from over 6,500 customers using Python and GraphQL.
- Built an internal Slack app that alerts my team of updates to project dependencies.

Software Engineering Intern Nov. 2020 – Sep. 2021
The Parable Group *San Luis Obispo, CA*

- Developed a Blazor application used by more than 600 independent stores and brands by building an expansive and reusable component library, improving site efficiency, and updating error-handling practices.
- Grew and maintained an outward-facing retail site framework that supports more than 25 websites reaching upwards of 5,000 users weekly.
- Deployed a lightweight service for processing geolocation data resulting in company savings from avoided outsourcing.

Technical Skills

Languages: Python, C/C++, JavaScript/TypeScript, Go, Terraform, C#, Java, SQL, R, Scala, GraphQL, PHP
Tools: Django, Flask, FastAPI, OpenCV, Sci-Kit Learn, Pandas, Spark, Hadoop, OpenMP, CUDA, React, Node, Express, MaterialUI, MongoDB, .NET, Blazor, gRPC, AWS, Azure, Kubernetes, Docker

Education

California Polytechnic State University San Luis Obispo, CA
Bachelor of Science in Computer Science *Sep. 2019 – Dec. 2022*

- GPA: 3.9, *Summa Cum Laude*