

Paul Blackburn

Software Engineer

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Software Engineer with expertise in Python, full-stack development, and DevOps practices. At JPMorgan Chase & Co., containerized numerous applications to run efficiently on Kubernetes and implemented CI/CD best practices, including UTC compliance in Jenkins deployment pipelines. At CardIsle, engineered cloud printing solutions for on-demand greeting cards, utilizing WebSocket communication for real-time functionality, contributing to the company's acquisition by 1-800-Flowers. Proven ability to design scalable, efficient systems and deliver impactful results in both enterprise and startup environments.



Work History

2023-12 -
Current

Software Engineer

JPMorgan Chase, Wilmington, DE

- Enhanced system stability and scalability by implementing asynchronous endpoint processing, an advanced authentication layer to prevent FID lockouts, and a persistent storage layer that decoupled storage from application code.
- Redesigned Calculators, simple UIs for running PySpark workloads on EMR, enabling migration from a shared VM to Kubernetes for improved efficiency and reliability.
- Standardized deployment pipelines by learning Groovy to develop custom stages for Jenkins K8s pipeline, ensuring UTC compliance and enforcing failure thresholds for insufficient test coverage.
- Promoted best practices in version control by establishing Git standards, resolving complex merge conflicts, and mentoring team members on effective collaboration techniques.

2020-01 -
2023-11

Software Engineer

Card Isle, Blacksburg, VA

- Designed cloud printing infrastructure that pushes greeting card print jobs to clients in real time
- Implemented in Python using WebSockets, Asyncio, Windows API, and Requests
- Scaled the software to support hundreds of clients, various Windows OS and printers
- Configured Celery workers to optimize uptime and throughput of task queues
- Developed RESTful API endpoints using Django
- Integrated upsells for various ecommerce platforms, including Shopify, using JavaScript and Liquid

- Created data visualizations using Google Looker Studio and PostgreSQL
- Built single page apps using Alpine.js with functionality to record videos, upload photos, and edit rich text

2020-01 -
2020-05

Research Assistant

Crowd Intelligence Lab, Blacksburg, VA

- Implemented feature requests for PairWise, a Flask web app

2018-08 -
2019-12

Undergraduate Teaching Assistant

Department of Computer Science, Blacksburg, VA

- Facilitated office hours for 10 hours per week
- Data Structures and Algorithms (CS 3114) Spring 2019, Fall 2019

2019-05 -
2019-08

Software Engineer Intern

Northrop Grumman, San Diego, CA

- Developed a desktop application for monitoring Quality of Service for Triton UAV
- Implemented using WPF, and XAML on the frontend and C# on the backend

2019-01 -
2019-05

Software Engineer Co-Op

Peraton, Blacksburg, VA

- Implemented the push notification system for DIBNet, a Java web app
- Conceived full stack solutions to Jira tickets within three week sprints



Education

Bachelor of Science: Computer Science

Virginia Tech - Blacksburg, VA

3.71 GPA

Mathematics Minor



Certifications

2024-11 AWS Certified Solutions Architect – Associate

2024-09 AWS Certified Developer - Associate



Websites, Portfolios, Profiles

- [linkedin.com/in/jpb2020/](https://www.linkedin.com/in/jpb2020/)



Projects

86 MH/s Ethereum mining server in dormitory (2 ETH mined)

EA SPORTS FC (previously known as FIFA) Ultimate Team Marketplace Trading Algorithms