

# John Wroge

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## Experience

### Home Unite Us | Hack For LA | *Software Engineer*

July 2023 - Present

- Spearheaded backend development of a Flask API by leveraging Python to craft API controllers, YAML to program Open API specification endpoints, and Pytest to eliminate side effects and regressions
- Attended stand ups to plan MVP requirements in a cross-functional team of data scientists, product managers, and UI/UX designers
- Ensured a consistent development experience by containerizing client and backend directories in Docker containers improving cross platform compatibility
- Utilized Postman and Swagger UI to interact with REST API and verify correct data transfer by ensuring reliable and consistent server request and response cycle
- Deployed a PostgreSQL database to ensure ACID compliance and a strict schema design for consumer applications

### Zeus | OS Labs Tech Accelerator | *Software Engineer*

August 2022 - Present

#### *Resource Monitoring and Visualization Tool for Kubernetes*

- Accelerated the decision-making capabilities of Kubernetes operators by creating a native Electron DevOps tool, which enabled real-time data fetching of significant health metrics such as CPU usage, Node status, and memory consumption
- Elevated user experience by constructing dashboard using React and Material UI leveraging its flexible grid system and pre-built components to ensure consistent rendering across different devices and screen sizes
- Integrated React Hooks and Context API to avoid unnecessary prop drilling and ensure data consistency across the application, ensuring modularity and scalability of all React components, and resulting in an improved developer experience
- Applied Prometheus as a monitoring system to query time series data regarding cluster performance and availability alongside D3 and Grafana charts as a visualizer to display relevant health metrics in tailored dashboards
- Utilized Docker and Helm Charts to containerize the deployment of the application within a Kubernetes cluster reducing deployment time by 20% and validating long term application durability
- Generated and implemented secure one-way salted and hashed passkeys for storing sensitive user information and validating login credentials

### Spaced Recall | *Spaced Repetition Learning Application*

2023

- Built a spaced learning web application by applying the MVC design pattern enabling consumers to review materials over 5 month periods for optimal retention and mastery
- Designed the application as a single-page application using React, Javascript, and React Router, allowing for fluid page transitions and new route capabilities, resulting in an enhanced user experience and reduced server load
- Deployed application on Heroku to enhance scaling, harness native continuous integration and deployment, and ensure seamless and efficient updates

### HyperActivit.io | *Application for Group Activity Generation*

2022

- Incorporated session cookies to persist login authentication improving the user experience in the application by privatizing secure user data over a timed session
- Architected backend error handling middleware to retrieve team details from MongoDB database improving traceability via documentation for developers
- Used Webpack to enable ES6+ transpilation, uglification, and minification in order to allow for an improved developer experience with a smaller, faster and more widely-deployable application

### Sharp Services | *QA / QA Lead*

August 2017 - June 2021

- Utilized SQL to boost query performance and access relational data in external database to ensure inventory record compliance
- Optimized software processes for analytical usage and operational efficiency, resulting in significantly enhanced productivity and workflows
- Developed and implemented automation solutions using Python to optimize the quantification and validation of incoming materials
- Refined inspection procedures with the implementation of a sample reserve program reducing inspection times by 20% while optimizing retrieval and organization of requirements

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## Technical Skills

JavaScript, Typescript, Python, Golang, React, Next.js, Material-UI, Node, Express, Flask, Docker, Kubernetes, REST API, Open API, AWS (EC2, S3, Elastic Beanstalk, Lambda), Heroku, PostgreSQL, MongoDB, Apollo GraphQL, Jest, Supertest, Travis CI, Authentication/Authorization (Bcrypt, OAuth 2.0, JWT) Build Tools (Vite, Webpack), HTML5, CSS, Version Control (Git, Github)

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## Certificates

Amazon Web Services (AWS) - Cloud Practitioner

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## Education

**Bachelor of Science:** Chemistry, Mathematics | Kutztown University | **Relevant Coursework:** C++, Python, Linear Algebra, Differential Equations  
**Codesmith:** Software Engineering Residency