JEFF BYJU

Software Engineer | **Phone:** 4805726414 | **Email**: jeffbyju@gmail.com | **LinkedIn**: linkedin.com/in/jeff-byju | **GitHub**: github.com/jeffbyju

EDUCATION

University of Illinois Urbana-Champaign – Master of Computer Science (MCS) | Expected: Dec-2025 **GPA: 3.89**

- Relevant Coursework: Deep Learning for Computer Vision, Distributed Systems, Real Time Systems, Applied Parallel Programming

Arizona State University – Computer Science (Bachelor of Science) | Graduated: May-2024 | **Summa-Cum-Laude** **GPA: 4.0**

- Relevant Coursework: Artificial Intelligence (AI), Computer Architecture, Computer Networks, Operating Systems, Databases

TECHNICAL SKILLS

Programming: C++, Shell scripting, Python
Cloud Computing: AWS DynamoDB, AWS Lambda, AWS S3, AWS Step function, AWS EventBridge, AWS API Gateway
Databases: NoSQL (MongoDB), MySQL
Data Manipulation, Visualization & Machine Learning: Pandas, Numpy, Seaborn, Scikit-learn, PyTorch
Web Development: Node.js, Express.js, React.js, Redux, CSS, Bootstrap, GraphQL, ASP.NET core
Mobile Development: React Native, Redux, SwiftUI (iOS)
DevOps: CI/CD Deployment, Docker, Terraform, Kubernetes, AWS CDK

WORK EXPERIENCE

The Luminosity Lab, ASU, Tempe, AZ: Role – Researcher **August 2022 – May 2024**

- Designed and realized an intuitive user interface for a complex simulation web application using React technology, resulting in engagement metrics improving by 35% while fostering increased interaction among users.
- Built a scalable application backend with Node.js, Mongoose, MongoDB, and Flask; refined data retrieval methods resulting in a 30% decrease in user query response times across the entire platform.
- Directed the comprehensive execution of Docker containerization for front-end and back-end systems; achieved an improved integration process leading to a notable reduction in deployment timeframes while increasing operational consistency by 10%.

Amazon Web Services, Seattle, WA: Role - Software Development Engineer Intern **May 2023 – August 2023**

- Developed a groundbreaking solution leveraging AWS Lambda and S3 to enhance efficiency in daily historical data processing, resulting in a 35% decrease in manual intervention time for point-of-presence demand forecasting.
- Leveraged expertise in **AWS Lambda, API Gateway, S3, SNS, and Pandas** to design and implement an optimized workflow that processed daily historical data and forecasted demand metrics, facilitating in-depth data analysis.
- Applied an innovative workflow to seamlessly integrate metadata datasets into the AWS step function, enabling accurate cold start forecasting for demand metrics across three critical time series.

State Farm, Tempe, AZ: Role - Software Engineer Intern **May 2022 – August 2022**

- Spearheaded integration of automated security scan setups; reduced project initiation time by an average of 15 minutes per team member while enhancing overall organizational workflow and boosting employee satisfaction ratings.
- Engineered a high-performance server-side framework using Node.js and Express, coupled with thorough unit testing via Jest; this innovation minimized debugging efforts by over 20 hours in each project cycle.
- Instrumented a comprehensive secret management strategy utilizing Vault, which safeguarded sensitive information across three different environments without compromising performance or accessibility timelines set by product teams.
- Structured robust Gitlab CI/CD workflows to streamline jobs such as testing and application deployments; accelerated release cycles by over two weeks while maintaining high code quality standards throughout the process.
- Executed deployment strategies using Kubernetes resources, including Deployment, Service, and Ingress; facilitated seamless application deployments that enhanced operational efficiency by reducing downtime to less than 5 minutes.

University Technology Office, ASU, Tempe, AZ: Role - Software Developer **June 2021 – April 2022**

- Collaborated on enhancements for the official Arizona State University mobile application used routinely by a community exceeding 100,000 users; focused on optimizing user engagement through improved interface features.
- Crafted the Sun Devil Rewards Dashboard using React.js and AWS technologies, enhancing user interaction for over 100,000 daily users at Arizona State University while ensuring smooth functionality during peak usage times.
- Constructed robust connections between the React.js interface and AWS API Gateway endpoints; ensured smooth performance by reducing response times to under 200 milliseconds during peak usage hours.
- Added image upload functionality to store images of rewards in **AWS S3** buckets using an **AWS Lambda** script.

ACCOMPLISHMENTS

Google Developer Student Clubs at ASU

- Coordinated 12 technical workshops and coding sessions that enhanced the skills of more than 60 club members; laid groundwork for continuous learning initiatives, leading to a significant spike in engagement levels.

Wayfair (Best Solution for Inequality Crisis)

- Designed and implemented a sophisticated web scraper utilizing Node.js during TartanHacks, extracting valuable insights from over 200 delivery driver GoFundMe pages to enhance targeted fundraising strategies for local communities.