Jason Merchan

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EDUCATION

Rutgers University — New Brunswick, NJ
B.S. in Computer Science, GPA: 3.8 — *May 2026*
Relevant Coursework: Data Structures, Algorithm Design, Computer Architecture, Data Management, Data Science, Systems Programming, Operating Systems, Computer Security, Numerical Analysis, Software Engineering

PROFESSIONAL EXPERIENCE

Software Engineering Intern — May 2025 – August 2025
GitHub — *Remote*
- Developed pre-migration CLI tool in Go, addressing 9% of migration issues and streamlining customer migrations
- Built Support Vector Machine model by cleaning Azure data, achieving 93% accuracy in migration time estimates
- Added support for version-control hosts by fetching repo metadata with GraphQL, covering 100% of migrations
- Engineered unit and integration tests with CI/CD pipeline using GitHub Actions, automating binary releases

Software Engineer — March 2024 – Present
Rutgers University — *New Brunswick, NJ*
- Cross-collaborated to develop the official myRutgers App using Flutter and Firebase, serving 70,000+ users
- Implemented app-wide navigation system, using URI routes, resulting in 14% performance improvement
- Redesigned authentication system, using state management and API integration, reducing login time by 4x
- Reworked components using JavaScript web-scraping and Firestore Database to deliver user-tailored widgets

Web Developer — June 2021 – August 2021
Urological Associates of Central Jersey — *Edison, NJ*
- Designed the website for Urological Associates, using React.js establishing online presence for patients
- Increased clinic's online visibility by 70% using SEO practices, providing a 38% growth in page views
- Incorporated medical documentation into user-friendly content, achieving 95% client satisfaction
- Reduced patient phone inquiries by 25% through website information accessibility, lowering clinic costs

PROJECTS

Layback Mobile App | *Flutter, Dart, Firebase, Firestore* — February 2025 – Present
- Deployed mobile app using Flutter and Firebase to provide beach equipment and reservations for hundreds of users
- Improved user data security by integrating Google and Facebook login APIs, and Stripe payment API
- Constructed inventory system, using state-management, achieving real-time UI based on available supply
- Designed modular architecture with reusable widget components, reducing feature development time by 25%

KnightMarket | *JavaScript, AWS, React, GitHub, Docker* — September 2024 – December 2024
- Developed a marketplace and forum webapp for the Rutgers community, increasing student-to-student interactions
- Lead a team of 8 engineers using Agile practices to accomplish sprints efficiently and meet project deadlines
- Implemented 10+ REST APIs for communication with serverless Lambda functions, reducing infrastructure costs
- Integrated CI/CD using Docker, AWS SAM, and GitHub Actions, streamlining development and deployment

MyShell | *C, Makefile, Shell, Git* — March 2024 – April 2024
- Created Linux-based shell in C with piping, I/O redirection, and wildcard expansion for system interaction
- Enabled custom commands with function pointers in C, enabling Shell conditionals and expanding operations
- Enhanced reliability using error handling and Makefile testing, eliminating resource leaks in pipe operations

Rutgers Rocket Propulsion Lab | *Python, C++, GitHub* — September 2022 – February 2024
- Improved radio frequency transmission algorithms by 19% in speed, providing better real-time data accuracy
- Facilitated cross-functional team meetings between telemetry and other subsystems, limiting integration issues
- Developed an intuitive GUI using Godot with C++ and GDScript, developing real-time data visualization

TECHNICAL SKILLS

Frameworks/Libraries: React.js, Node.js, Express.js, Pandas, NumPy, Flutter
Languages: Go, Python, JavaScript, TypeScript, Java, C, C++, Dart, HTML/CSS, SQL,
Developer Tools: Git, GitHub, AWS, Azure, Google Cloud, MySQL, Postman, Docker, Firebase, XCode
Other Skills: Machine Learning, REST API, Multithreaded Programming, Object-Oriented Programming, Agile