

Ben Malkin | Software Engineer

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Results-driven Software Engineer with experience in backend development, distributed systems, and full-stack solutions. Leveraging my background as a small business owner, I bring a unique blend of technical expertise and business acumen to deliver secure, scalable, and impactful software solutions. Proficient in object-oriented programming (OOP), AWS cloud-native development, encryption standards (DIT & DAR), and Agile methodologies. Experienced in driving projects through all development phases, from architecture to deployment.

WORK EXPERIENCE

Iridium Communications - Software Engineer II

Tempe, AZ | April 2023 - Present

- Engineered backend services, client-server interfaces, and data processing pipelines for a next-gen SATCOM system, securing \$150M+ in government contracts.
- Designed and implemented high-performance, scalable RESTful APIs for mission control systems, integrating cryptographic authentication and supporting up to 10,000 users.
- Developed Python-based analytics tools that optimized satellite beam resource allocation, improving bandwidth efficiency by ~25% and reducing operational costs.
- Defining and Leading DevOps automation efforts using Docker, GitLab Runner, and Ansible, reducing deployment time by ~40% and enhancing CI/CD pipelines.
- Designed a mission-critical Key Management System leveraging NIST SP 800-56 KDF encryption, securing classified communications across thousands of endpoints.
- Building and deploying AWS-native solutions, optimizing infrastructure with EC2, S3, ELB, and AWS SDK, improving cloud efficiency and cost management.
- Applying Agile methodologies to enhance development velocity, driving cross-functional collaboration and sprint efficiency.

Arizona State University - Software Engineer Intern

Tempe, AZ | May 2022 - December 2022

- Developed a peer-reviewed research search engine, leveraging Node.js, Express.js, and React to build a full-stack proof-of-concept application for a PhD Professor.
- Implemented interactive data visualizations using D3.js, improving UI/UX and real-time data interpretation.
- Applied Agile methodologies and Scrum principles to drive efficient development cycles, collaborating with product owner to align technology with research goals.
- Designed and optimized database schemas to improve data retrieval speed and application performance.

Aerial Eye Drone Specialists LLC - Owner/President

Scottsdale, AZ | September 2017 - December 2022

- Commercial drone operations as an FAA Part 107 licensed pilot.
- Founded and scaled a commercial drone services company, managing operations, hiring employees, and expanding service coverage.
- Provided aerial photography, videography, and data collection services for real estate, marketing, and commercial applications.
- Led customer acquisition and contract negotiations, securing long-term client relationships.

EDUCATION

Arizona State University (ASU) - B.S. in Computer Science and Cybersecurity

Tempe, AZ | August 2018 - December 2022 | GPA: 3.62 - Magna Cum Laude

SKILLS

- Programming Languages:** Python, Java, JavaScript, C++, C, C#
- Software Development:** Backend development, API design, microservices, database optimization, software architecture
- Web Technologies:** RESTful APIs, GraphQL, SOAP APIs, JSON, XML, HTML/CSS
- Frameworks & Tools:** Node.js, Express.js, React, Next.js, Docker, Kubernetes, GitLab
- Machine Learning & AI:** TensorFlow, PyTorch, Scikit-learn, Keras, Pandas, NumPy, Matplotlib, Seaborn
- Natural Language Processing (NLP):** NLTK, SpaCy
- Cloud & Platforms:** AWS (EC2, S3, Lambda, ELB, RDS, DynamoDB), RHEL, Ubuntu, Amazon Linux
- Development Practices:** Agile, DevOps, CI/CD, test-driven development (TDD), containerization, cloud security

CERTIFICATIONS

- AWS Certified Cloud Practitioner