NOAH JONES

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SUMMARY

Senior Software Engineer and Educator with experience developing AI-powered, cloud-native, and full-stack software solutions across healthcare, education, logistics, robotics, and research environments. Proven track record designing and deploying scalable APIs, distributed systems, automation frameworks, machine learning solutions, cloud infrastructure, and data-driven applications using Python, JavaScript, SQL, AWS, Docker, and modern DevOps practices. My background includes large language models (LLMs), retrieval-augmented generation (RAG), semantic search, CI/CD pipelines, automated testing, and production system support, as well as developing autonomous robotic systems and scientific visualization tools.

In addition to my software engineering experience, I have taught computer science, programming, robotics, and engineering courses to middle school, high school, college students and working professionals, designing curriculum and mentoring learners across a wide range of technical subjects within the field of Computer Science. I enjoy solving complex technical problems, learning new technologies, mentoring others, and translating technical concepts into practical solutions for both technical and non-technical audiences. With experience leading projects from concept through deployment, I bring a combination of strong technical expertise, communication skills, and a practical, results-oriented approach to software development, education, and innovation.

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, TypeScript, SQL, Java, C#, C++, PHP, Dart, HTML, CSS
Cloud, DevOps & Infrastructure: AWS, Google Cloud Platform (GCP), Docker, Kubernetes, Terraform, Infrastructure as Code (IaC), CI/CD Pipelines, Jenkins, GitLab, Cloud-Native Applications
AI, Machine Learning & Data: Large Language Models (LLMs), Retrieval-Augmented Generation (RAG), Agentic AI Workflows, Machine Learning, Natural Language Processing (NLP), Semantic Search, Vector Databases, Neural Networks, TensorFlow, Sentence Transformers, Prompt Engineering, Data Science, Intelligent Automation
Web Development & APIs: React, Vue.js, Node.js, Flask, Flutter, REST APIs, Full-Stack Development, SaaS Applications
Databases & Tools: MySQL, Redis, Google BigQuery, Pinecone, ChromaDB, Neo4j, Git, Postman, Selenium, Unity, JSON
Software Engineering: Agile Development, Distributed Systems, Microservices Architecture, Automated Testing, Software Design Patterns, System Architecture, Technical Leadership
Education & Instruction: Computer Science Instruction, Robotics Education, Curriculum Development, STEM Program Development, Technical Mentoring, Project-Based Learning, Technical Communication

WORK EXPERIENCE

EDUCATIONAL ROBOTICS ENGINEER & CURRICULUM DEVELOPER **Orlando, FL**
Florida Film and STEM Academy *March 2025 - Present*

- Engineered robotic systems utilizing microcontrollers, sensor fusion, motor control algorithms, computer vision, and wireless communication technologies.
- Designed and fabricated custom robotic assemblies using CAD software, 3D printing, laser cutting, and rapid prototyping techniques.
- Developed software for autonomous robot navigation, object detection, task execution, and robotic automation using Python and C++.
- Optimized robot performance through iterative testing, data analysis, and mechanical/electrical system improvements.
- Designed and delivered robotics, engineering, computer science, and STEM curriculum for middle school and high school students using hands-on, project-based learning methodologies.
- Created instructional materials, lab activities, and technical documentation covering robotics, embedded systems, electronics, artificial intelligence, programming, and engineering concepts.
- Taught programming fundamentals using Python, C++, and robotics development platforms while reinforcing software engineering and problem-solving best practices.
- Collaborated with educators and administrators to expand STEM programming and align curriculum with educational objectives and emerging technology trends.

FREELANCE SOFTWARE DEVELOPER AND CONSULTANT **Remote, USA**
Wyzant *August 2020 - Present*

- Collaborated with clients across healthcare, education, research, logistics, and technology sectors to design, develop, and maintain custom software solutions.
- Developed full-stack web applications, APIs, cloud-native services, and automation tools using Python, JavaScript, SQL, and modern software engineering frameworks.
- Delivered end-to-end software projects spanning requirements gathering, architecture design, implementation, testing, deployment, and production support.
- Designed and implemented AI-powered applications utilizing large language models (LLMs), retrieval-augmented generation (RAG), semantic search, vector databases, and machine learning technologies.
- Built and deployed cloud-based applications using AWS, Google Cloud Platform, Docker, CI/CD pipelines, and DevOps best practices.
- Developed data processing pipelines, analytics platforms, and system integrations to automate workflows and improve operational efficiency.
- Collaborated with neuroscientists to develop software for visualization and analysis of MRI, EEG, and tractography data, supporting advanced research initiatives.
- Optimized application performance, database efficiency, and system reliability through monitoring, testing, debugging, and infrastructure improvements.
- Conducted code reviews, architecture assessments, and technical consultations to improve software quality, scalability, and maintainability.
- Provided technical mentorship and instruction in software engineering, cloud computing, artificial intelligence, robotics, data science, and computer science topics.

AI ENGINEER **New YorK, NY**
AMC Health *September 2025 - April 2026*

- Designed, developed, and deployed AI-powered healthcare applications leveraging large language models (LLMs), retrieval-augmented generation (RAG), semantic search, and machine learning technologies.
- Architected and maintained scalable AWS cloud infrastructure supporting high-availability healthcare applications, remote patient monitoring systems, and data-driven decision support solutions.
- Developed distributed AI systems, backend services, REST APIs, and multi-agent workflows using Python and cloud-native technologies to automate business processes and enhance operational efficiency.
- Built and integrated data pipelines, vector databases, and enterprise application integrations to support real-time data ingestion, processing, analysis, and knowledge retrieval.
- Implemented semantic search and information retrieval solutions using embedding models, Pinecone, ChromaDB, and related technologies to improve data accessibility and response accuracy.
- Applied DevOps and CI/CD practices to streamline deployment, testing, monitoring, logging, and maintenance of cloud-based applications.
- Collaborated with cross-functional stakeholders to gather requirements, design technical solutions, and deliver production-ready systems aligned with business objectives.
- Optimized application and AI system performance through evaluation frameworks, prompt engineering, retrieval tuning, monitoring, and continuous improvement processes.
- Conducted technical research and prototyping to evaluate emerging AI technologies, frameworks, and architectures for production use.
- Produced technical documentation, architectural designs, and implementation guides to support maintainability, operational readiness, and knowledge sharing.

FOUNDING FULL-STACK DEVELOPER **Remote, USA**

TeachMeNow Medical *July 2023 - September 2025*

- Led the architecture, development, testing, and deployment of a cloud-based AI-powered educational SaaS platform, delivering full-stack functionality across frontend, backend, database, and API layers.
- Integrated LLM APIs to build retrieval-augmented generation (RAG) capabilities that enhanced contextual search, knowledge retrieval, and personalized learning experiences.
- Developed scalable Python services and designed RESTful APIs supporting AI-driven workflows and application integrations.
- Designed and implemented data storage and retrieval solutions utilizing SQL, vector databases, and graph databases, including ChromaDB, Pinecone, and Neo4j, to support high-performance search and analytics.
- Built and maintained responsive web applications using HTML, CSS, JavaScript, and reusable UI components, delivering intuitive user experiences and interactive data visualizations.
- Implemented cloud deployment and automation processes to support reliable application delivery and ongoing platform operations.

PYTHON DEVELOPMENT LEAD **Alamo, CA**

The Eighth Notch, Inc. *May 2022 - October 2024*

- Led the design and development of a RESTful API using Python to synchronize planned deliveries for shippers and carriers, resulting in a reduction of unnecessary delivery truck stops by 30%.
- Integrated neural network models into the real-time data processing workflow, enabling predictive analytics for the purpose of optimizing limited computational resources and improving customer outcomes.
- Built CI/CD pipelines with GitHub Actions and Docker, automating testing and deployments to speed up releases.
- Utilized TensorFlow to design, train, and optimize a machine learning model to accurately predict patterns within large datasets, resulting in a 20% increase in data consolidation efficiency.

PYTHON DEVELOPER **Alamo, CA**

The Eighth Notch, Inc. *February 2022 - May 2022*

- Utilized Python and SQL to design, build, and maintain scalable data pipelines and tools that reliably ingest, standardize, transform, and store large volumes of raw customer data ensuring data accuracy and consistency resulting in a 95% reduction in errors for analytical and operational use.
- Implement automated testing frameworks using Python for data validation and transformation quality control.
- Automated ETL processes for large datasets using Python, SQL, Big Query, Cron and Google Cloud Scheduler to eliminate virtually all manual data processing.
- Optimize data pipeline performance by troubleshooting failures and proactively addressing bottlenecks by conducting unit and load testing on customer facing data related applications which reduced system failure by 70%.

COMPUTER SCIENCE TEACHER **San Mateo, CA**

Crystal Springs Uplands School *August 2020 - February 2022*

- Designed and delivered computer science and software development curriculum for middle and high school students, covering programming, robotics, game development, and computational thinking.
- Taught courses in Python, C#, Java, robotics, game design, and computer science fundamentals, emphasizing hands-on project-based learning and real-world applications.
- Instructed students in software engineering best practices, including data structures, algorithmic problem-solving, code organization, debugging techniques, version control concepts, and code documentation standards.

COMPUTER SCIENCE TEACHER **Los Angeles, CA**

Milken Community Schools *July 2019 - August 2020*

- Developed and taught Introductory Computer Science and AP Computer Science Principles courses for middle and high school students.
- Instructed students in programming fundamentals using Python, Java, and C#, covering object-oriented programming, problem-solving, and software development concepts.
- Taught core computer science topics including data structures, algorithms, computational thinking, debugging, and code organization best practices.
- Developed hands-on learning experiences involving robotics, game design, 3D modeling, digital fabrication, and physical computing technologies.
- Mentored students in programming, engineering design, debugging, data structures, algorithms, and project development, helping them build technical and creative confidence.

LEAD COMPUTER SCIENCE INSTRUCTOR & CREATIVE TECHNOLOGIST **Oakland, CA**

David E. Glover Emerging Technology Center *January 2017 - July 2019*

- Designed and delivered computer science, software engineering, robotics, game development, and emerging technology curricula for middle school, high school, and enrichment programs.
- Taught programming concepts using Python, Java, C#, JavaScript, and web technologies while emphasizing problem-solving, computational thinking, and software engineering best practices.
- Created engaging project-based learning environments that encouraged innovation, collaboration, critical thinking, and real-world application of STEM concepts.

EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY **Berkeley, CA**

Bachelor of Arts - Cognitive Science