Henry Wang

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Software Engineer with 2 years of experience in backend APIs, cloud-native apps, and data pipelines. Proficient in cloud computing, data storage, ML, and Gen-AI with a proven track record in delivering end-to-end cloud solutions.

EDUCATION

Master of Computer Science | **University of Illinois Urbana-Champaign** | GPA 3.87/4.0 Aug 2022 – Dec 2023
Coursework: Software Engineering I & II, Advanced Data Management, Cloud Computing, Internet of Things (IoT)

Bachelor of Computer Science | **University of Colorado Boulder** Aug 2018 – May 2022
Coursework: Programming, Data Structures, Algorithms, Database Systems, HCI, Big Data, Artificial Intelligence (AI)

TECHNICAL SKILLS

Programming Java, Python, Groovy, JavaScript, TypeScript, R, C#/C/C++, Object-Oriented Programming (OOP)
Frameworks Spring Boot, Django, Flask, React, Angular, Vue.js, TensorFlow Lite, OpenCV, Scikit-Learn, YOLOv8
AWS Cloud EC2, VPC, API Gateway, Lambda, Step Functions, CodePipeline, Route53, IAM, SQS, SNS, Bedrock
Databases SQL, MySQL, Oracle, MongoDB, AWS DynamoDB, S3, Neo4j, Redis, Pinecone, Chroma
DevOps, CI/CD Git, Docker, Kubernetes, AWS EKS, LocalStack, Maven, Gradle, Grafana, Prometheus, Sumo Logic
Infrastructure as Code AWS (CDK, CloudFormation, SAM), Ansible, Terraform, LocalStack
Streaming & Big Data Apache (Kafka, Flink, Spark, Hadoop, Airflow), AWS (Kinesis, EMR, Glue)

WORK EXPERIENCE

Full-Stack Software Engineer | **GraceTech Services** | Remote Apr 2024 – Present
Technology: *JavaScript, React Native, ES6+, Axios, OAuth, Docker, Kubernetes, Grafana, Prometheus*

- Implemented React-native UI components, including Google Sign-in, for Bible study education app.
- Developed Axios interceptors to reduce code duplication, streamline error handling and authentication.
- Integrated Jitsi with Docker and Kubernetes to deliver scalable, low-latency videoconferencing features.
- Leveraged Grafana and Prometheus to monitor live meeting statistics and visualize key performance metrics.

Software Engineer Intern | **Infor** | Vancouver, BC May 2022 – Aug 2022
Technology: *Python, PyTest, AWS (CDK, API Gateway, Lambda, DynamoDB), Docker, LocalStack, Airflow*

- Led end-to-end API development on AWS full SDLC practices and GitLab CI, improving dev efficiency.
- Implemented reusable CDK constructs to replace SAM, reducing infrastructure code from 1000+ lines to ~200.
- Developed AWS Lambda (Python) query proxy with DynamoDB caching, cutting AWS Translate costs by ~$7.5K and improving performance by 35% through parallel batch processing.
- Built event-driven test automation for API Gateway and Lambda using Pytest, improving reliability and coverage.
- Accelerated Apache Airflow DAGs by 30% through Pandas processing and parallel execution.

Software Engineer Intern | **Infor** | Vancouver, BC May 2021 – Jul 2021
Technology: *Java, Groovy, SpringBoot, Hibernate, Python, AWS (API Gateway, Lambda, VPC, Redis, SAM), Oracle, SQL*

- Developed and maintained Java/Groovy REST APIs using Spring Boot, MVC, and ORM for global QSR POS apps.
- Improved performance by cutting API response times 30% through SQL query tuning, pagination and caching.
- Led migration from monolithic Grails APIs to microservices on AWS, driving modernization initiatives.
- Increased deployment frequency by 40% through auto infrastructure provisioning and CI/CD with AWS SAM.
- Built voice food ordering chatbot using AWS Lex v2 and NLP, pioneering AI-driven natural interaction.

RELEVANT PROJECTS

Generative AI Virtual CV Assistant: Built Gen-AI Q&A chatbot using Python, LangChain, vector databases (Pinecone, Chroma), LLMs, N8N, Ollama, and AWS Bedrock's Titan, leveraging RAG and fine-tuning to reduce hallucinations.

Research Kafka vs Spark Performance on Streaming ML Tasks: Implemented sentiment and anomaly detection in Python Spark vs Kafka on Docker and Kubernetes (AWS EKS), and compared latency and throughput performance.

Self-Driving + Multi-Language Voice Control Raspberry Pi Car: Engineered vision autonomous navigation with A* and SLAM algorithms in Python. Implemented Alexa voice control, achieving 95% accuracy via AWS IoT and NLP.

CERTIFICATIONS

- AWS Certified Developer (Issued Aug 2021) + PCAP™ Certified Associate in Python (Issued Aug 2023)