

BUNPHENG CHHAY

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EDUCATION

Master of Science, Computer Software Engineering (Data Science Specialization)

Exp. 2025

San Jose State University, San Jose, CA

Bachelor of Science, Computer Science, Minor in Statistics

Sacramento State University, Sacramento, CA

AWS Certified Cloud Practitioner, Amazon Web Services: MEMWP59DP2V4Q4C8

SKILLS

Programming & Frameworks: Java, JavaScript, Python, R, CSS, Figma, HTML, Node.js, React, Express, MongoDB, SQL

Cloud & DevOps: Docker, AWS (EC2, Lambda, S3, Amplify, Connect, Lex, IAM, Polly, Rekognition, Sage Maker, SF, CF, API gateway)

Data Science: Pytorch, Plotly, Seaborn, NumPy, Pandas, Scikit-learn, Transformer, LLAMA3, Pinecone, Langchain, Huggingface

Others: Git, Jupyter Notebook, Linux, Jira, Agile, JSON, CSV, XML, Scrum, System Design, Unit Test, CI/CD

EXPERIENCES

Web Developer, Freelance. [View Client Project](#)

Apr 2024 – Present

- Designed, developed, and deployed scalable web app for small business clients using MERN stack, AWS Cloud, and leverage Google Analytics to track user engagement, achieving 35% boost in event counts, 6% rise in active users and 8% increase in new users
- Automated deployment on AWS Amplify and GitHub, reducing turnaround time and ensuring high reliable through CI/CD pipeline
- Engage directly with clients to extract and implement requirements, added targeted seasonal promotion result in 40% viewers boost

Associate Solutions Architect Intern, Amazon Web Services (AWS), Seattle WA

May 2022 - Aug 2022

- Managed two end-to-end projects, developed and deployed AI/ML and chatbot projects, including a project featured at **AWS reInvent**
- Identified core business requirements, developed AWS reference architecture, POC Solutions, cost projection and optimization
- Architected cloud based solution using AWS Step Functions, S3, Lambda, API Gateway, Polly, Lex, Connect for real-time solutions
- Built an event driven architecture and AI/ML workflows using computer vision, NLP, and text-to-speech, solving complex user needs
- Deployed cloud infrastructure covering frontend (React), APIs backend (Node.js, Python), data storage, security, and monitoring
- Assisted in customer projects, providing research and reports on data migration, security, and CI/CD pipeline improvements

Business Operations Manager, TLBU Foundation, Atlantic City, New Jersey

May 2017 - Aug 2019

- Led multi-million dollar projects, driving a 30% revenue increase through strategic decision-making and collaboration with executives
- Built business plans, market research, finance, legal, IT infrastructure, property acquisition to optimize operations and scalability
- Identified target markets and implemented data-driven marketing strategies, increasing new customers by 70%
- Adopted new IT system upgrades to streamline operations, improving internal processes and enhancing customer relations

COURSE AND PERSONAL PROJECTS

Foodie Project, Independent Group Initiative

Ongoing

- Designed fullstack MERN app for food reviews using large scale datasets, Yelp and DoorDash and Gen AI QA interactive Chatbot
- Optimized RAG pipeline with Pinecone, Langchain, and Llama3 to deliver accurate info retrieval with 92% increase in response time
- Designed custom LLM and embedding functions with the adapter pattern to connect Cloudflare hosted API with Langchain chains
- Deployed LLM and embeddings models on Cloudflare, with frontend hosted on AWS Amplify and backend with AWS Lambda
- Dockerized the entire application, packing frontend, backend, and Gen AI models for streamlined deployment and scalability

Multi-Domain Online Marketplace, Enterprise Software Platform, SJSU

Feb 2024 – May 2024

- Developed a multi-domain web platform integrating react, mongodb, php, apache http and mysql server, and deployed on AWS EC2
- Implemented multi-domain authentication, improving user experience and data security

Hackathon for market Research and Food Security, Business Intelligence, SJSU

Apr 2024 – Apr 2024

- Rapidly developed a Gen AI chatbot using RAG, langchain, T5 and chromadb to extract and analyze business insights
- Presented data driven solutions, including interactive visualizations using Plotly and Python to illustrate key market trends

Movie Theater Club Application, Software Systems Engineering, SJSU

Oct 2023 - Dec 2023

- Led a 3 persons team as Scrum Master, managing sprints with Jira and managing version control with GitHub
- Led in system design, created UML diagrams, MongoDB schema, and wireframes and prototype in Figma
- Built backend APIs for CRUD operations, built frontend: navigation, auth, booking, and geolocation. Deployed on AWS EC2

University database management system, Advance DBMS, CSUS

Aug 2020 - Dec 2020

- Designed a database management system for a university including schema design, automated mass data insertion, and added functionality for creating, updating, deleting, dropping, altering, asserting, and view with SQL.

AWARDS AND HONORS

- 1st Place - Inaugural WWCS Intern PRFAQ contest on "Most likely to become an Amazon feature", AWS, 2022
- Dean's Honor Roll: From Spring 2020 to Fall 2023 at The College of Engineering and Comp-Sci, CSUS