Runpeng (Benson) Jian

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EDUCATION

University of California, San Diego — *La Jolla, CA*
M.S. Computer Science, GPA: 3.99 — Sep 2024 – Dec 2025
B.S. Computer Science, GPA: 3.85 — Sep 2022 – Aug 2024
Honors/Scholarships: Future Leaders in STEM Scholarship, Qualcomm Alumni Scholarship

SKILLS

- **Programming Languages:** Java, Python, C++, JavaScript, SQL, HTML/CSS
- **Frameworks & Tools:** React(TS/JS), Next.js, Node.js, FastAPI, PyTorch, TensorFlow, React Query, PostgreSQL, Supabase, AWS (S3, Lambda, CDK, EC2), OpenSearch, Docker, GitHub Actions, CI/CD, Git, Linux/UNIX, Vercel
- **Systems:** Distributed Systems, RESTful APIs, Database Design, Full-Stack Development

EXPERIENCE

ChatDocs — Jun 2025 – Present
Software Developer (Team Project) | *FastAPI, AWS CDK, OpenSearch, Bedrock, Lambda* — *La Jolla, CA*

- Orchestrated retrieval-augmented generation (RAG) system leveraging AWS S3, Lambda, OpenSearch, and Bedrock, enabling document ingestion and semantic search across 1M+ documents with automated classification features, enhancing search relevance by 60%.
- Designed RESTful API endpoints with FastAPI for seamless document upload, embedding generation, and query processing, facilitating a 30% boost in overall system throughput and zero reported data loss.
- Orchestrated a fully automated testing suite using pytest and Docker, achieving 90% code coverage; this reduced debugging time by 15 hours weekly and enhanced code reliability for document processing.

Outlier AI — May 2024 – Mar 2025
AI Trainer | *RLHF, Prompting, LLM Evaluation* — *Remote*

- Designed and implemented structured prompt engineering workflows and reinforcement learning from human feedback (RLHF) methodologies, boosting code generation accuracy by 17% for complex classification challenges.
- Created systematic code review processes to identify and resolve quality issues in AI-generated code, reviewing 500+ code samples weekly and focusing on performance optimization.
- Refined model responses by implementing targeted prompt strategies and output rewriting guidelines, aligning generated code with industry-standard deep learning practices and improving task success rates by 25% using PyTorch and TensorFlow frameworks.

Wang Lab — Jun 2023 – Sep 2023
Research Engineer | *PyTorch, Transformer, Diffusion Models* — *UC San Diego, La Jolla, CA*

- Scrutinized 15+ neural network architectures using PyTorch for image processing, contrasting performance metrics like PSNR and SSIM, pinpointing optimal methods for visual reconstruction tasks.
- Conducted systematic analysis of diffusion models in image restoration, processing 10K+ image datasets and synthesizing findings from 50+ research papers to develop solutions for inverse problems and pattern recognition.
- Presented research at NCUR and UCSD Summer Research Conference, highlighting applications in imaging restoration techniques.

Ujima Lab — Sep 2022 – Jun 2023
Machine Learning Engineer | *Python, NLP, Data Mining* — *UC San Diego, La Jolla, CA*

- Built automated data collection pipeline using Python, Reddit API, pandas, and NLTK to gather user experiences across 15+ gaming platforms, implementing scalable text processing workflows for comprehensive privacy research datasets.
- Leveraged NLP techniques including sentiment analysis, topic modeling, and text classification to analyze 75K+ Reddit comments, uncovering 8 distinct privacy concern patterns through unsupervised clustering algorithms using scikit-learn.
- Co-authored paper accepted at WIPS 2023, contributing ML-driven visualizations and achieving 85% accuracy in automated privacy concern classification across diverse user demographics.

PROJECTS

Daily Progress Community Platform | *Next.js, Supabase, React Query, PostgreSQL* — GitHub | View Project

- Developed a community-driven habit tracking platform with forum-style post creation, commenting, upvoting functionality, and integrated CI/CD pipeline using GitHub Actions for automated testing and deployment to Vercel platform.
- Implemented user authentication using Supabase Auth, real-time updates via WebSocket connections, and badge system for user achievements using Next.js App Router and PostgreSQL database with connection pooling.
- Conceived relational database model for user data, community posts, and challenge progress, fortified by Row-Level Security policies; enhanced query speeds to under 200ms response times.

Zoltar — Fortune Teller Web App | *JavaScript, CI/CD, Agile Development, E2E Testing* — GitHub | View Project

- Orchestrated the front-end architecture for Zoltar, a fortune-telling web application with interactive 2D/3D elements using JavaScript, CSS, and HTML within an Agile team of 10, enabling 1,00 hourly user interactions.
- Engineered a streamlined CI/CD pipeline using GitHub Actions, cutting down deployment failures by 30% and enabling faster iteration cycles, which led to the team completing the project 2 weeks ahead of schedule.
- Implemented dynamic audio features and modular component structure, conducting cross-browser testing to ensure functionality across multiple platforms.

LEADERSHIP & AFFILIATIONS

Codepath | Community Member — Jun 2025 – Aug 2025
UC LEADS Program | Scholar — Jun 2023 – Jun 2024
Chinese Engineering Society | Board Member — Sep 2022 – Jun 2023