Nadja Rhodes

Software {Machine Learning} Engineer

narhodes1+res@gmail.com iconix nadjarhodes iconix.github.io

Work Experience

ASAPP **Jan 2019 – Jul 2024**

New York, NY

- **Staff Machine Learning Engineer** (Nov 2021 – Jul 2024)
  - Led ML engineering team of three, with collaboration from a dozen research scientists and product engineers, to productionize an LLM-based customer support agent for a Fortune 100 airline client, enabling automating complex call center interactions.
  - Led team of four to develop company-wide ML training framework used by all (~20) models, which required standardized pipelines, remote compute access, dataset and model management, and external tool integration.
  - Architected multi-node distributed training on colocated servers using Kubernetes and Ray.io; collaborated on implementing training dataset indexing service for 10x faster dataset access (minutes to seconds).
  - Proactively built an internal Slack bot as a passion project, providing thread summarization, ownership info, and trend detection to improve team communications.
- **Lead Machine Learning Engineer** (Jan 2019 – Nov 2021)
  - Architected centralized routing layer between applications and ML services, migrating critical NLU components while orchestrating parallel model calls and unifying responses with entity handling and intent classification.
  - Led end-to-end development of named entity recognition service and entity highlighting for 1st company voice client; owned domain-specific entity highlighting from planning to rollout, delivering 11% increase in entity card hover rates.

Microsoft **Sep 2013 – Sep 2018**

Redmond, WA

- **Software Engineer II** (Apr 2016 – Sep 2018)
  - Pioneered and patented ML efforts in an incubation team of three, developing a task detection prototype, among others.
  - Rebuilt and open-sourced the OneNote Web Clipper on a modern, React-like framework; led JS testing infrastructure and client-side telemetry implementation. Led technical development of Web Clipper ratings prompt, increasing Chrome Web Store rating from 2.73 to 4.44 stars.
  - Spearheaded GDPR compliance plan and implementation for exporting OneNote content.
- **Software Engineer** (Sep 2013 – Apr 2016)
  - Led development and public launch of OneNote.com/notebooks entry point (4M MAU, 58K daily visits).
  - Enhanced backend for OneNote welcome emails and produced data-driven insights on site experimentation.

Education & Scholarship

OpenAI Scholar **Summer 2018**

OpenAI *San Francisco, CA*

- Granted scholarship to study deep learning under Dr. Natasha Jaques; focused on language modeling and generative text for NLP.
- Developed and open-sourced deephypebot, a generative language model that creates music commentary on Twitter. (Code, Talk)

B.S. Computer Science **2009 – 2013**

Stanford University, School of Engineering *Stanford, CA*

Career Transitions & Engagement

- **Recurse Center** (Nov 2024 – Feb 2025): Self-directed programming retreat in a peer-learning environment. Focused on web development, creative coding, and generative AI.
- **Family Sabbatical** (Jul – Nov 2024): Dedicated time for first-time parenting and career path reflection.
- **Presentations & Conferences**: OpenAI Scholars Demo Day (2018, deephypebot), RenderATL (2023), ACL (2019), NSBE (2018), GHC (2016), Y Combinator FFC (2014).
- **Internships**: NTT Communication Science Labs (2012), Google BOLD (2011), Stanford Research (2010).

Technical Skills

- **Languages & Frameworks:** Python, PyTorch, PyTorch Lightning, Jupyter, TypeScript/JavaScript, SQL, Hugging Face Transformers.
- **ML & AI:** NLP/NLU, Neural Networks, Large Language Models, Distributed Training, Fine-Tuning, Text Embeddings, Conversational AI, Multi-Agent Systems.
- **Infrastructure:** Kubernetes, Ray, Cloud Computing (AWS), CI/CD Pipelines, Airflow, MLflow, Docker, Git.
- **Backend & API Development:** aiohttp/asyncio servers, ML inference APIs, Microservices, gRPC/Protocol Buffers, REST, API Gateway patterns, horizontally scalable services.