

# Nadja Rhodes

Software {Machine Learning} Engineer

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## 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 new LLM-based customer support agent for a Fortune 100 airline client, enabling automating complex call center interactions.
  - Led team of four developing company-wide ML training framework used by all (~20) models, standardizing 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 internal Slack bot as 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 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)
  - Rebuilt and open-sourced [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 for exporting OneNote content; pioneered and patented ML efforts in an incubation team of three, developing a task detection prototype.
- **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 parenting and early childhood development.
- **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.