Michael Lange

Software Engineer

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Summary

With 25 years in the industry, I am a versatile engineer, communicator, and data expert. My strength lies in crafting solutions for complex software challenges, aiming to leverage my extensive experience to develop leading AI solutions. I am committed to innovation and excellence in every project I undertake.

Top Skills

- Technologies I Love: AI/ML, ClearML/MLOps, PyTorch, OpenAI, Scikit-Learn, Node, React/Redux, iOS Swift/Obj-c, Google Cloud, AWS, Azure, Docker, Kubernetes, MongoDB (all NoSQL), TensorFlow, Keras, NVIDIA Triton Inference, CUDA, SQL Server, Jupyter Lab/Hub, CoLab, Flask
- Languages: Python, ESx/JS, C#, Swift, Objective-C, Java, TypeScript, SQL, Rust, C++, C, HTML/CSS

Freelance - AI or Human Project

Custom GPT w/ Actions and API

October 2023 - February 2024 [Overview](#) | [Source Code](#) | [Video Walkthrough](#)

Led the development of a Custom OpenAI GPT with Actions and API Integration, achieving seamless integration with ClearML. This project spotlights my ability to navigate complex AI architectures and deliver a comprehensive solution from concept to deployment.

- Orchestrated a scalable ML deployment leveraging OpenAI, HuggingFace, Docker, and NVIDIA Triton Inference, ensuring the model's seamless operation and accessibility.
- Crafted an OpenAI GPT with Actions and API Integration.
- Improve model interpretability by using GPT4 LLM to explain forecasts.
- Open all source and record step by step implementation video for posterity and fun.

Tech Stack:

ClearML, OpenAI, HuggingFace, PyTorch, TensorFlow, Scikit-Learn, InterpretML, Spacy w/ Berkley Neural Parser, Optuna, Docker, K8, NVIDIA Triton Inference

Valorem Reply

Software Engineer III

March 2022 - July 2023 Website

- Developed an Azure-native race analytics and car inventory platform, centralizing telemetry, race, and car build data, optimizing decision-making for six motorsports teams.
  - One sheet: https://valoremreply.com/work/modern-tools-to-transform-and-elevate-motorsports-technology
- Worked on the FastTrack migration system for Microsoft.
- Acquired 2 Microsoft Certifications.
- Gave presentations, learning and training sessions.

Notable Technologies

c#, javascript, Terraform, python, sql, azure.

Brandt Information Services

Sr. Software Engineer

December 2019 - November 2021 Website

- Managed the development of sixteen (16) Xamarin Mobile Applications iOS and Android, and ten Law Enforcement (iOS/Android.
- In the process of porting all apps to Native iOS (Swift) and Native Android (Kotlin).
- Built SQL queries for millions of records per state.
- Built Tableau reports for clients.

Notable Technologies

Xcode(Swift,obj-c), Kotlin, Java, Xamarin, SQL Server, c#, sql, ES6, java, .net, Android, Firebase, Docker, Tealium, Braize, Azure, Jira, Bitbucket, Confluence (the whole suite), Git, and more..

MWMFund (Money With Meaning)

Lead Software Engineer

June 2019 - November 2019 Website

- Design and Build Corporate Identity.
- Built MWMFund.com.
- Built the Private Investor Admin Portal (React/Redux/Google Cloud/Firebase, Docker/Kubernetes).

- Built Machine Learning, and EDA tools for price forecasting models and foreclosure probabilities. (Python, TensorFlow, Keras, Plotly, D3, Jupyter and others).
- Node.js Web API for Partner integration.

Technologies

React/Redux, NodeJS, Semantic UI, Google Cloud, Git, webpack, Flask, jest, google analytics, kubernetes, Jenkins, Docker, google cloud build, Firebase/Firestore.

Cloud Scale International

Application innovation Engineer

August 2018 - June 2019

https://cloudscalecorp.com/

- Built SharePoint Solutions using React/Redux (spfx).
- Built a CMS for an undisclosed client. React/Redux/Azure.
- Built a custom reporting and analytics solution - Azure/Application Insights.
- Built Demo Bots using Microsoft Bot Platform and Beta versions of Live Tiles. (Q&A maker/Microsoft Luis).
- Built a custom Azure Media Service Workflow and Custom Azure Media Player (that integrated with Application Insights).

Technologies:

React/Redux, NodeJS, Angular, .net MVC, Azure Media Services, Custom APM, Microsoft Bot Framework, Live Tiles, Luis, q&a maker, Azure dev ops, SQL Server, Cosmos, Blob, queue, google analytics, application insights /w custom APM Plugin, share point, spfx, azure service bus, PowerBI.

Artificial Chat / Unbundled, Inc

Application Engineer/ Ai Research
January 2018 - August 2018

- Built the framework for their in-house Bot Platform.
- Built AWS Bot's using Lex.
- Designed/implemented next-gen conversation UI.
- Researched and Implemented NLP (Natural Language Processing) for bots.

Technologies:

Bot Work: AWS Lex, AWS Lambda, React/Redux/MobX, sql server, elasticsearch, Cassandra db, Spacy NLP, custom language models, Cloud Formation, ect, travis ci, Docker, Jest, Jupyter, Colab, keras/tf, fastai, cuda,

torch7

Ai Research: Angular, Carbon Design, React/GunDb, IBM Cloud, Watson, Spark, Mongo DB, IBMq, Tensorflow/Keras, Torch7, PyTorch, Jupyter, Spark/ Zeppelin Languages: Python, Lua, c++, c, ES6, Colab

Gain Life, Inc / Harvard Innovation Labs
Senior Software Engineer

January 2018 - August 2018 Website

- Worked with behavioral scientists to develop applications that assisted in getting people back to work.
- Built web and mobile apps for their flagship product (confidential).

Technologies:

React, Redux, NodeJS, AWS, Stripe, AWS Lambda, SQL

Linfield Media, Inc
Senior Software Engineer

March 2017 - January 2018

- PHP developer and designer for promocodesforyou.com.
- Redesigned the back end for promocodesforyou.com.
- Integrated their CMS with Google Ads.

Technologies: PHP, Zend Framework, Git, SQL Server

Securities Training Corporation
Senior Software Engineer

June 2007 - March 2017

Job Summary: A three-month contract turned into 10 years and building out their entire IT infrastructure and applications

- A three-month contract turned into 10 years and building out their entire IT infrastructure and applications.
- Rebuilt www.stcusa.com front and back end (.net MVP/C#, SQL Server). A custom e-commerse solution.
- Integrated client-facing application with back-end systems.
- Developed Two iOS native applications. See here in app store
- Built customer portals for their banking clients (Chase, GS and others).

Technologies: c#/.net, sql server, sqlite, universal ios/obj-c/swift,
Parse(custom build), google analytics, material design, Cocos2d, SpriteKit, Core
Animation

Touch Medix

Application Architect / Mobile

January **2009 - June 2009 - Contract**

Served as Lead Architect and Engineer for the lightningcharts product, enabling bedside
medical documentation, including EKG and radiology images, via iPad. Integrated voice-to-text
technology for efficient data entry.

- Architect and Engineer on lightningcharts.com (the product not website).
- Designed the complete architecture.
- Zero to product production at inhuman time frames.
- Developed Choice Point® interface that reduces 80% of manual entry for a 100% final
  chart.
- Integrated Isabel Symptom Checker.
- HIPAA compliant and EHR modular certification.
- Complete hands-free charting with Dragon and Nuance.

Technologies: ios/objc, .net/c#, WCf, CMS core measures, realtime PQRS scores,
ehr certification, custom ci/cd for compliance, Core Data, Dragon

GigWerks

Senior Software Engineer

September 2005 - June 2007

- Full Stack Application Engineer for a Gold Certified Microsoft Solutions Partner focused
  on SharePoint technologies. Full stack C#/.net Microsoft Solutions Provider. Worked on
  a wide range of projects for many clients.
- Built ICookPro for Culinary Institute Of America.
- Developed Microsoft CRM Solutions.

Technologies: Net/c#, Sharepoint, SQL Server, AJAX, .Net Remoting, Microsoft
CRM, Win32 API, WinForms, .net MVC, Photoshop

121 Communications, Inc

Senior Software Engineer / Prototype Research

June 2003 - September 2005 - Full Time

Job Summary: Developed hi-end client facing work like transitcheck.com and also in house prototypes of emerging tech.

- Built TransitChek.com.
- Developed prototype search tech with Carnegie Mellon University. Based on their Vivisimo Platform. (acquired by IBM in 2012, now integrated into Watson)

Technologies: .net/c#, c++, Flash, Flex, Photoshop, Illustrator, sql server, git, subversion

L'Oréal USA

Senior Software Engineer

March 2002 - June 2003

Job Summary: Port L'Oreal's web applications from asp old to asp.net
- lorealusa.com full redesign and back end
- redken.com visual redo
- redkensalon.com visual redo

Technologies: asp, asp.net, sql server, ajax, flash, .net remoting
Notable Mention: Public nod by Bill Gates at the 03' developers conference in SF for "porting one of the first Fortune 500 companies to the new .net platform" .

Euro RSCG Worldwide / Havas Creative

Designer and Animator

May 2001 - March 2002

- Flash and Director animator. I built animated reels and presentations for potential clients.
- Built client "E-Blast" technology for product launches.
- Developed Interactive Product Guides for GSK, B&L Visudyne.

NinjaTrader Group, LLC

Platform Architect and Quantitative Programmer

January 2016 - September 2017 (corp to corp)

- NinjaTrader technology partner. Statistical forecast modeling, neural net designer, HTF strategy consultant, Custom platform enhancement, NT7 to NT8 indicator/strategy auto conversion application, platform architecture and adaptive risk management.

Certifications:

- [AWS Certified Machine Learning – Specialty](#)
- [Microsoft Certified: Azure Developer Associate](#)
- [Microsoft Certified: Azure Fundamentals](#)
- [AWS Certified Cloud Practitioner](#)

Other:

- Contributor to [Closter](#) early think-tank and Education
- LinkedIn: [Michael Lange on LinkedIn](#)