Daniel Vliegenthart

daniel.vliegenthart@gmail.com | [LinkedIn](#) | [Github](#)
+447727199179 | London, UK

ABOUT ME
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As a pragmatic senior software engineer and team lead with more than 9 years of experience, I thrive in an environment with open communication, constructive feedback and challenging problems to solve with confidence. The pursuit of growth and curiosity is what motivates me in my career and life.

I am eager to join a progressive, forward-thinking organization that thrives on innovation and leverages cutting-edge technologies to drive meaningful impact and offers abundant opportunities for professional growth.

With a strong interest in the real-world applications of AI, and vast experience in data engineering & science and leadership, my focus lies in fostering a team culture of collaboration, ownership and learning to harbour productivity and satisfaction. Most importantly, I recognise that each team member has unique motivators and goals. I firmly believe in the right balance between utilizing existing tools and building solutions using novel technologies to solve complex problems with high velocity and prioritization.

WORK EXPERIENCE
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CTO @ Parsel.ai | London, UK   Jan 2023 - Present
- As CTO, I strive to build technology that solves our customers' concrete challenges of interrogating unstructured data that is trapped in documents, with the goal to save them time.
- Led a diverse and cross-functional team of seven senior DevOps, frontend & backend engineers, data scientists and junior interns.
- Built and deployed hybrid (semantic + sparse) document search, using PyTorch, Transformers (SPLADE), LLMs and Pinecone.
- Built multiple document search and Q&A POCs in Python with LangChain and LLMs for customer leads, which clearly demonstrated how we can save them time and reduce errors.
- Led client-facing meetings to facilitate value delivery, solve technical hurdles and provide technical support to generate lasting & fruitful long-term relationships.
- Collaborated daily with UX, Product and Sales to define our product's technical strategy and roadmap and find product market fit.

Tech Lead @ Parsel.ai | London, UK   Jul 2021 - Jan 2023
- Headed up the team that built a complex document processing & analysis serverless pipeline:
  1. An algorithm that structures data from unstructured sources (PDFs and images), combining state-of-the-art technologies like NLP, OCR and ML, with our novel in-house built visual clues identifier and table extraction algorithm.
     Deployed on AWS, with advanced Step Function resource orchestration (serverless and Fargate) and map-aggregate patterns for optimal parallelisation and scalability.
  2. Backend GraphQL API driving our web application, using serverless, Typescript, NestJS and Domain-Driven Design (DDD).

- Led recruitment and grew the team from scratch to five engineers.
- Advocated for and implemented coding standards, through pre-commit tooling and automatic code quality analysis in Python (local and CICD) to remove friction from my team's daily development experience and decrease software bugs.
- Identified and addressed technical debt to improve monitoring, maintainability and performance. This resulted in a significant latency reduction, clearer error alerting and a reduction in cost.

Data Scientist & Full-stack Engineer @ Tellimer | London, UK   Oct 2018 - Jul 2021
- To better understand our customers' behaviour, I independently designed, built, and managed Tellimer.com's web engagement analytics platform utilising Vue.js, Node.js, TypeScript, AWS, Snowflake and GraphQL. This resulted in a strong increase in upsells to clients with high engagement, alongside fraudulent usage detection.
- I single-handedly developed and maintained Tellimer.com's ETL and fan-out dynamic event routing system to increase flexibility and decrease duplication. Built with Python, AWS Eventbridge, AWS SQS, and AWS Kinesis Firehose; operating seamlessly for over 3 years and handling over 250 million events.

Lead Full-Stack Web Developer @ Ans Delft | Delft, NL (Part-Time)   Oct 2015 - Aug 2017
Built and managed core features of the Ans online education platform, using Ruby on Rails, JavaScript (jQuery and CoffeeScript), PostgreSQL, RSpec, MaterializeCSS and SASS.

Full-Stack Web Developer @ Transvise | Delft, NL (Part-time)   Oct 2013 - Sep 2015
Worked on a blended learning platform with Ruby on Rails, JavaScript (jQuery), PostgreSQL, RSpec and SASS.

SOFTWARE ENGINEERING SKILLS
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Programming languages:
Python (Expert), Javascript (Expert), Typescript (Expert), Ruby (Intermediate), Java (Proficient)

ML & Data Processing Libraries:
PyTorch, Pandas, Numpy, LangChain, Transformers, Scikit-Learn, Matplotlib, Hadoop and Spark

Database Technologies:
PostgreSQL, DynamoDB, MongoDB, Pinecone, Snowflake, Redis and Redshift

Frameworks & Libraries:
Serverless, Node.js, GraphQL, Flask, NestJS, Ruby on Rails and Pulumi

Miscellaneous:
AWS, Datadog, Git, VS Code, LaTeX

PUBLICATIONS
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[Coner: A Collaborative Approach for Long-Tail Named Entity Recognition in Scientific Publications](#)

EDUCATION
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Master of Science in Computer Science @ Delft University of Technology   Aug 2015 - Aug 2018
- Program specialization in Data Science & Technology, with key courses in Information Retrieval, Recommendation and Data Engineering.
- An average grade of 8.4/10.0 (4.0 GPA in the USA[1]).

NLP Research @ National Institute of Informatics | Tokyo, Japan   Sep 2017 - May 2018

My master thesis, in collaboration with Aizawa's NLP lab in Tokyo, on crowdsourced named entity recognition in scientific publications was [published](#) and received a grade of 8.5/10.

Bachelor of Science in Computer Science @ Delft University of Technology Aug 2012 - Jun 2015
- Specialization in Intelligent Data Analysis, with a focus on Big Data Processing and Modeling, Probability & Statistics and Algorithm Design.
- Bachelor Project: Modularization of Learning Tools at FeedbackFruits (9.0/10.0).
- An average grade of 7.6/10.0 (3.7 GPA in the USA[1]).

Exchange Semester in Computer Science @ KTH | Stockholm, Sweden   Aug 2016 - Jan 2017

Exchange Minor in Computer Science @ University of Waterloo | Canada   Aug 2014 - Dec 2014

LANGUAGES AND INTERESTS
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Languages:
English (bilingual proficiency) and Dutch (native proficiency)

Interests:
Recently I've started piano lessons and find it calming and enjoyable to sit down at the end of my day behind a different kind of keyboard. Aside from this, I can pour my creativity into baking and cooking. When I have a longer break from my desk, I love travelling the world and hiking.

1.   https://www.findamasters.com/guides/gpa-grade-point-average