

Martijn F. W. van der Veen

PERSONAL *Born:* August 1989
Amsterdam (Dutch nationality) *E-mail:* [martijn.vderveen \[at\] gmail.com](mailto:martijn.vderveen@gmail.com)
Residence: Amsterdam, The Netherlands *Website:* <https://turiphro.nl>

TL;DR: BSc artificial intelligence, MSc computer vision & graphics
Startup founder & CTO (4yrs), Amazon (3.5yrs+); total 7.5yrs+ industry experience

PROFESSIONAL EXPERIENCE **Software Development Engineer**

Amazon

March 2017 - Present

FinTech (*June 2019 - Present*), Amsterdam, The Netherlands

Greenfield project on AWS, automating financial transformations (processing \$0.5BN/year in the testing phase). I designed and implemented the core transformation service based on Spark, and overall infrastructure (serverless and microservices). I also mentored junior developers.

Technologies: Spark, AWS Glue, Scala, Java, Python/Pandas, Javascript/React, AWS Lambda, Step Functions, CloudFormation, ECS/Fargate, S3, DynamoDB, etc

Alexa Smart Home SLU (*February 2018 - June 2019*), Vancouver, Canada

Software developer / NLP engineer at the Smart Home spoken language understanding (NLU/NLP) team.

- Designed, built, and released natural language support (training NER + domain + intent classifiers, updating intent ontology, creating synthetic + live data, writing grammars, maintaining annotation specs) for over half a dozen Alexa features, including Amazon Basics Microwave
- Built and improved NLP software tools for personalisation and contextual features
- Mentored team members and became a certified 'NLP bar raiser'
- Got promoted

Technologies: Python, Spark, EC2/EMR, git, SOA, OpenFST, internal Amazon tools (data science CL, custom NN runtime, ML experiments, NLP annotations, release & deployment)

Delivery Experience, Amazon Retail (*March 2017 - February 2018*), Vancouver, Canada

Part of a small team with large customer-facing responsibilities and a service handling 16BN requests a day. Worked on launching new delivery programs (e.g., Amazon Key), optimising service efficiency (resulting in \$1.5M savings on a yearly basis), peak days preparations, OnCall, and (re)building the team.

Technologies: Java (Spring, Lombok, Mockito), EMR/Hive/Hadoop, git, SOA, internal Amazon tools (fleet management, continuous delivery, release management, testing frameworks, metrics & dashboards)

Co-Founder

Zazzy, Amsterdam, The Netherlands

March 2013 - December 2016 (3yrs 9mos)

End-to-end e-Commerce platform for personalised products, including online tools for easy designing/customisation. Product are produced by professional 3D printing services (metals) and laser-cutting. We built a full platform including easy-to-use design website, custom built e-Commerce platform, production management, assembly, and drop-shipping.

- Hired and built a team of 8+ people
- Raised angel capital (from founders of eBuddy, Hyves, vakantievervelingen, a.o.)
- Partnership with HEMA (largest Dutch non-food retailer), introduced 3D printing to Dutch market
- Developed 3D engine for custom product design: on-the-fly creation of printable 3D models based on customer input (text, images, photos of drawings, face detection, etc), photo-realistic rendering, and 3D printable model output
- Designed and set up scalable render farm (500k+ renders generated)

- Part of Rockstart Accelerator 2013

Technologies: Django, Blender, OpenCV, Python (NumPy, Scrapy, Flask), MySQL, MongoDB, Docker, Wercker (CI), Sentry, REST APIs, React, websockets, Google Cloud Platform, Azure Cloud, git, PHP, Kissmetrics, 3D printers, CAD design

Engineer (Volunteer)

The Things Network, Amsterdam, The Netherlands

August 2015 - October 2016 (2yrs 3mos · part-time)

Building a crowd-sourced open data-network for the Internet of Things! I implemented the main website & community portal & kickstarter landing page, and built first hardware node prototype (featured on Dutch national news).

Technologies: Django, Docker, Arduino, C, Go

Programmer

Stichting Studiebegeleiding Leiden, Leiden, The Netherlands

August 2009 - March 2013 (3yrs 8mos · part-time)

I built the main website, wrote internal tools, and managed online advertisement campaigns.

Technologies: PHP, MySQL, Python, VBA

EDUCATION

University College London, London, United Kingdom

MSc. Computer Graphics, Vision and Imaging (with distinction)

September 2011 - September 2012

- Dissertation topic: Automatic 3D reconstruction of difficult outdoor scenes
- Courses: Computer vision, image processing, virtual reality (VR), computer graphics, computational photography, geometry of images, math

University of Amsterdam, Amsterdam, The Netherlands

BSc. Artificial Intelligence (with distinction, with honours)

September 2008 - August 2011

- Dissertation topic: Autonomously navigating drones (reinforcement learning)
- Courses: computer science courses (Java, C & C++, Prolog, algs+datastruct, OS, DBs, distrib systems, crypto), machine learning, neural networks, reinforcement learning, computer vision, NLP & Speech / computational linguistics, knowledge systems, math courses (LA, calc, prob, logic, geometric algebra), humans (cognitive psychology, philosophy of mind), robotics courses (SLAM / ProbRob; kinematics; simulations; electronics)

University of Technology Delft, Delft, The Netherlands

Electrical Engineering (Propedeuse / half of BSc; extra during BSc AI)

September 2009 - August 2011

TECHNICAL SKILLS

- Solid Experience in the fields: Computer Vision (*3d reconstruction, depth vision, image processing*), Artificial Intelligence / Machine Learning (*NLP/NLU, CV, deep learning*), Data engineering (*Spark, Hadoop/MapReduce, SQL, NoSQL, ETL*), Cloud computing and DevOps (*AWS, GCP, Linux, scalable architectures, serverless, CI, metrics*), Web Development (*Backend, some Frontend and UI/UX*), Computer Graphics (*3D models, rendering engines*)
- Computer languages: C, C++, Python, Java, Scala, JavaScript, PHP, SQL, Matlab, PROLOG, (Go)
- Solid Experience with Tools/Libraries: Unix/Linux and CL, git, AWS (*EMR, Glue, EC2, ECS/Fargate, Lambda, SF, S3, DynamoDB, etc*), Spark, Hadoop, Docker, OpenCV, OpenGL, PCL, Django, Blender, NumPy, ReactJS, MySQL, MongoDB, REST APIs, Google Cloud Platform, Azure Cloud, Wercker (CI), Sentry, websockets, Arduino, 3D printers
- Medium experience (*work, side-project, book, mooc*): MXNet, TensorFlow, Go, Ruby, Postgres, Redis,

D3js, Unity3D, GPUs, VHDL

HOBBIES AND INTERESTS I have broad technical interests, and you'll often find me working on side-projects which combine software, AI, and electronics (see [my website](#) for a selection). I like trying out new technologies and stay up to date with the ML/CV literature. If you can't reach me, I'm probably enjoying beers at a local bar, sightseeing during a citytrip, or hiding in Corona lockdown.

From Sept 2012 - Sept 2013 I was **vice-chairman** of Student Association Liber Amsterdam, responsible for organisation of activities for 100 members.