Dirk Hornung, Ph.D.

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Professional Experience

since July 2019

Getting into AI
Absolved the Deep Learning and Machine Learning specialisation on Coursera. Applying Neural Networks to active noise cancelling simulations.

May 2018 - Jan. 2019

CYSAE
CTO (2 Developers)

Utility Token for Cuatre Casas
Customised an ERC-20 Solidity Smart Contract for a Spanish lawyer agency. Configured and launched an Ethereum Node connected to a Node-Express REST API to consume the token functionality.
Stamper
Developed a React-Redux Web App with an GraphQL-Prisma-MySQL backend hosted on AWS-ERC docker containers and AWS-S3.
Boardchain
Developed a DAO to decentralise board meetings. The Web App was based on React-Redux backed by Serverless AWS-Lambda, AWS-S3, AWS-Cognito and AWS-Dynamodb.

Oct. 2017 - Apr. 2018

Alda
CTO & Co-Founder (1 Developer)

Alda Chatbot
Created a Messenger Fintech Chatbot. Modelled and trained a RNN before switching to the Dialogflow API for the NLP. Created a Serverless Python-Flask-AWS-RDS (PostgreSQL) backend, combining the Facebook and Saltedge API to connect and query financial information of our clients.
Chatbot UI
Created React-Redux PWA connected to our chatbot. Integrated the app in various Wordpress and Liferay installations.

Feb. 2017 - Sept. 2017

WeGoLoco
CTO & Co-Founder

Created a native iOS app based on Swift.

Education

2019	**Deep Learning Specialisation** Absolved five classes of the Coursera specialisation of Deep Learning to study Neural Networks, Hyperparameter tuning, Machine Learning projects, Convolutional Neural Networks and Sequence Models.
2015 - 2019	**Ph.D., Theoretical Physics**, Autonomous University of Barcelona (Spain) Thesis: The QCD Strong Coupling from Hadronic Tau Decays Supervisor: Dr. Matthias Jamin Created a numerical chi-squared fitting routine, written in C++ using the frameworks BOOST and ROOT.
2014 - 2015	**M.Sc., Particle Physics**, Autonomous University of Barcelona (Spain) Thesis: 1-Loop Anomalous Dimensions of 4-Quark Operators Supervisor: Dr. Matthias Jamin
2011 - 2014	**B.Sc., Condensed Matter Physics**, Goethe University Frankfurt (Germany) Thesis: Band Structure Studies of Graphene and Modified Graphene Structure Supervisor: Prof. Dr. Roser Valentí

Skills

Data Science	Python, Tensorflow, Keras, Pandas, Numpy, Matplotlib, Tensorflow, SVM, NN, CNN, RNN Mathematica
Frontend	JavaScript, React, React Native, Redux, Flutter, CSS, HTML
Backend	AWS, Node, Express, MySQL, PostgreSQL, Node, DynamoDB, Serverless, Flask, Zappa, Django
Blockchain	Ethereum, Solidity, Smart Contracts, Tokens economy, Decentralised Identity, ICOs
Prototyping	Arduino, C++, Fusion 360, 3D-Printing, CNC, Electronics
Marketing	Photoshop, Illustrator, Final Cut Pro, SEO, SEM, Wordpress, PHP
Soft	Leadership, Public Speaking, Motivating, Mentoring, Confidence, Energy

Awards

June 2019	**Imagine Silicon Valley Finalist**. One of ten finalists of more than 500 applicants who sent in a one minute video (https://www.youtube.com/watch?v=Om1DGAa7Cgw) to be sponsored for a Silicon Valley trip.
February 2018	**Winner: Imagine Developer Dreamer**. Got selected to participate in the "Imagine-Express-Train".
September 2018	**Best Fintech Pitch** Awarded 1st price at Fintech Stage's event "Fintech War" of over +16 fintech startups plus a 1k cash price
July 2018	**Winner Adidas Finals Herzogen-Aurach** Created the "Adidasum" ICO for an API data marketplace to democratise data and connect data provider, data scientists and data consumer.
May 2018	**MetLife Iberia Financial Inclusion Award** Awarded a 4K cash price at MetLife Iberia to keep promoting Financial Inclusion.
April 2018	**Winner Adidas Hackathon Barcelona** Created a system that could uniquely identify faces and track emotions. We trained a model to predict the probability of a client purchasing a certain item in an Adidas store.

Languages

German:	native
English:	proficient
Spanish:	proficient
French:	intermediate
Hungarian:	basics