

# Václav Volhejn

🏠 Prague, Czech Rep.  
☎ (+420) 607 837 205  
✉ vaclav@volhejn.eu  
🌊 IAmWave  
in My LinkedIn  
✳ 1997

## Experience

**Software Engineering Intern** — *Jane Street, London*  
JUL–SEP 2019

Development for quantitative trading firm. Worked on a tool used for pricing calculations and then on replacing a part of a system for managing transaction reporting. Used OCaml and SQL.

**Data Scientist Intern** — *Datamole, Prague*  
JUL 2018 – JAN 2019

Worked on projects in various fields including reinforcement learning, time series prediction, anomaly detection and real-time visual object detection. Used Tensorflow, Scikit-learn, NumPy, Pandas, OpenCV, Jupyter.

**Software Engineering Intern** — *Blue Vision Labs, London*  
JUN–SEP 2017

Back-end development for a computer vision startup. Worked in a team, but independently to a high degree. Primarily wrote TypeScript and Python, with occasional C++ and SQL. Was also involved in the hiring process.

## Education

**Charles University** — *Prague*  
2017 – PRESENT

Studying **computer science** at the Faculty of Mathematics and Physics. As of time of writing, perfect grades and 196 ECTS-credits in two years. Primarily interested in machine learning, theoretical CS and mathematics.

Studied **philosophy** at the Faculty of Arts during the 17/18 academic year.

## Skills & Abilities

Programming since an early age. Professionally worked with **Python, C++, OCaml, JavaScript, TypeScript**. Knowledge of **SQL, Haskell, Java, Go, Matlab, HTML, CSS**.

Knowledge of **Git, Jupyter Notebook, Docker, AWS, GCP, TensorFlow, Pandas**, among others.

Strong algorithmic thinking proven in programming contests.

Long-time **Linux** user; knowledge of **Bash** and the terminal in general.

**Driver's Licence** — class B (passenger cars)

## Languages

**Czech** — native

**English** — fluent (C2 — CAE Grade A)

**German** — B1

## Competitive programming

Wrote 10,000s of lines of C++ during algorithmic programming contests.

### ACM-ICPC

**56th place** at **ACM-ICPC World Finals 2018** (only about 400 out of over 46 000 students advance to this round)

**9th place** at Central European Regional Contest (CERC) 2018. **6th place** in 2017, **12th place** in 2016 (*unofficial participation*)

### Google Code Jam

**143th place** in 2018, **107th place** in 2016. Over 20 000 contestants participate each year.

### Olympiads

**Gold medal (15th place)** at the International Olympiad in Informatics 2016

**2nd place** at the Czech Programming Olympiad (MO-P) 2017

**1st place** at the Czech Programming Olympiad (MO-P) 2016

### Codeforces

In the **top 2%** contestants on Codeforces, the most popular competitive programming platform.

### Organizing

**Co-organizer** of Czech programming competitions **MO-P** and **Kasiopea**; preparing and testing contest tasks.

## Projects

**acres** — *CNN-based barcode sharpening*  
2018

A machine learning model for sharpening blurry images of barcodes. Based on convolutional neural networks, implemented in TensorFlow, trained on Google Cloud Platform.

**Samorozvrh** — *schedule optimization*  
OCT 2017 – FEB 2018

A web app which helps students create their schedule by selecting the times of courses, using a constraint programming solver. **Publicly available** and updated occasionally.

**Blekota** — *neural network sound generation*  
DEC 2016 – MAR 2017

Using a recurrent neural network, Blekota generates sound mimicking given input sounds. Implemented in pure NumPy, including manually computed derivatives and the RMSprop gradient descent algorithm.

**Sup** — *schedule-tracking app*  
2014

An Android app that automatically tracks changes in students' schedules. Had over 600 total installs. No longer available from Play Store (not maintained).