Kurt Peek

Curriculum Vitae

Full-stack engineer interested in solving challenging problems, learning new technologies, and building cutting-edge products

Experience

2018–2019 Software Engineer, PayPal Inc.

At Venmo, I contributed to both the backend (a Tornado web server using the Django ORM) and the Android app. Key achievements include:

- Reduced the response time of an API endpoint by 40% by reducing the number of database queries
- Fixed a release-blocking bug in the iOS app
- Set up marketing campaign attribution for deep links to the Venmo app

2018 **Software Engineer**, *Cleolabs Inc.*

Cleo provides support to expecting parents through a benefits package for family-forward employers. I developed and delivered RESTful APIs for our React Native app, integrated with third-party APIs, and contributed to our case management tools (in Django).

2016–2017 Backend Engineer, IperLane Inc.

IperLane (which was acquired by Crowdstrike) built a mobile device management (MDM) system which enabled organizations to protect sensitive data on their employees' mobile devices. I was responsible for the server side of the platform—a Docker Compose multicontainer application with a Flask backend—which implemented access control rules and anomaly detection.

2012–2016 **Geophysicist**, NAM B.V. (a Shell-ExxonMobil joint venture).

Increased the success rate of exploration drilling by screening prospects for anomalies on 3D seismic indicating the presence of hydrocarbons.

2008 Intern, Thales Netherlands B.V.

Simulated and analyzed novel digital signal processing algorithms to compensate for phase errors in the transmitted signal of frequency-modulated continuous-wave (FMCW) radars.

2006 **Intern**, Stanford University.

Contributed to efforts to synthesize a thin film of a homolog of a high- T_c superconductor.

Education

2011 M.Sc., Applied Mathematics, University of Twente.

Graduated from the Mathematical Systems & Control Theory (MSCT) group. Coursework included numerical methods, scientific computing, time series analysis, and stochastics.

2011 M.Sc., Applied Physics, University of Twente.

Graduated from the Complex Photonic Systems (COPS) group. Coursework included advanced optics, signal processing, quantum mechanics, and solid state physics.

2007 **B.Sc., Applied Physics**, *University of Twente*.

Taught seminars in mathematics and Matlab. Member of the varsity crew team and later captain of the varsity track team.

Skills

- Extensive experience with Python for web development and RESTful APIs (Django, Flask, Tornado), asynchronous processing (Celery, Twisted), and mathematical modeling and data analysis (NumPy, SciPy, pandas, scikit-learn)
- Experience in conceptualizing, developing, and testing native Android applications (in both Java and Kotlin) and reactive programming (ReactiveX)
- Experience with relational (PostgreSQL, MySQL), NoSQL (MongoDB, Cassandra, RethinkDB), and in-memory (Redis) database systems
- Experience with microservices (Docker), message queues (RabbitMQ), cloud services (AWS, Heroku, Google Cloud, Aptible), continuous integration (Jenkins, CircleCl, Gitlab Cl), and analytics (Amplitude, Sumo Logic)
- Experience in web development (HTML5/CSS3, Sass, Javascript (React, jQuery)) and UI frameworks (Bootstrap, Materialize)
- o Proficiency in mobile app development on iOS (in Swift) and in React Native

Courses

2017 Algorithms, Coursera (Stanford University).

4-course specialization covering divide-and-conquer methods, graph algorithms, greedy algorithms, dynamic programming, and NP-complete problems.

2016 Machine Learning, Coursera (Stanford University).

Broad course on machine learning covering linear and logistic regression, neural networks, anomaly detection, and dimensionality reduction.

Languages

English Fluent

Dutch Fluent

Italian Conversational

German Conversational