netlight

David Jungermann

Software Developer

David is a driven software developer, with competence from different disciplines within the software industry. With his background as a fullstack developer, he is well-suited for tasks in every part of the tech stack, and is able to pick up new technologies and skills quickly. He enjoys staying up-to-date with the latest technologies and principles, which has given him a broad perspective on software development that provides new, creative solutions to problems at hand. Most of David's experience has revolved around modern web development, using React, Node.js and TypeScript. With his experience in managing small and large projects alike, David can help bridge the gap between all stakeholders for any given project, while providing value as a talented developer.

Experience

Fullstack Developer
Frontend Developer
Backend Developer
Scrum Master
Project Manager

Background

M.Sc Information and Communication, Lund University, Faculty of Engineering LTH
Manufacturing
Real Estate
API
Food Industry
FoodTech
PropTech

Competences

JavaScript, TypeScript, React, Vue, Svelte, Node.js, C#, .NET, Java, Python, C, SQL, MongoDB, Linux, Windows, Windows Services, Android, Project Management, Scrum, CSS, SASS, Docker, Azure, AWS, CI/CD, IoT, SASS, Bootstrap, Web API, REST API, SOAP API, Usability Testing, Interaction Design, Usability, User Experience, Figma, Data Visualization, Unit Testing, Integration Testing, NUnit, Jest, Puppeteer, Swagger, Webpack, npm, Yarn, git, Storybook.js, Advanced Installer

Selected experience

Fullstack Developer — Tetra Pak

Tetra Pak is a market leading, international food processing and packaging company that also manufactures and maintains equipment for these tasks. While on the IoT team, David worked on an internal tool used for planning and sizing of virtual machines used to run software on Tetra Pak equipment. He designed and developed a database solution and REST API that interfaced with both external and internal APIs, along with a web application for the graphical interface. The tool is now used by the Tetra Pak sales team to a large extent, and helps them avoid time consuming, manual labor when tailoring solutions for clients.

Frontend Developer — Tetra Pak

Tetra Pak is a market leading, international food processing and packaging company that also manufactures and maintains equipment for these tasks. David and his team were responsible for implementing a component library for React, in order to facilitate development of graphical user interfaces at Tetra Pak. The goal was to provide a uniform design for all web applications developed at Tetra Pak, without having to reimplement components for each new project. The component library is used extensively by several teams at Tetra Pak in order to streamline their frontend development.

Fullstack Developer — Tetra Pak

Tetra Pak is a market leading, international food processing and packaging company that also manufactures and maintains equipment for these tasks. Davids team worked on a complete redesign and implementation of a graphical interface for a production machine, along with a REST API for handling the required tasks. This project acted as a proof-of-concept, where newer technologies were evaluated, in order to see if similar projects would be viable in the future. After completion, several similar projects have been conducted at Tetra Pak, using similar technology, with the goal of improving the user interfaces for production equipment. The optimized GUI was very well-received by end users during usability testing, and has acted as inspiration for subsequent user interface design.

Experience

Fullstack Developer - Optimizing the usability of REST API reference documentation
Homepal, Q1 2021 - Q2 2021

Homepal is a tech startup in the real estate industry. Their software acts as a mediator between real estate companies and software suppliers, simplifying the process of replacing solutions and transferring information. The company was founded in 2018 and received its first investment in 2019, accelerating the efforts of bringing their product to the market.

The goal was to help property owners structure their data, without interfering with already existing data, which in turn will make it easier to provide value to tenants through further services. The data can be accessed through a REST API, which, at this stage, had lackluster documentation.

David investigated how their documentation and developer tools could be expanded and improved, in order to make it easier to grasp and get started with their API and data structure, with a focus on newer developers. The goal of the project was to facilitate the learning process by using pedagogics and interaction design, while still maintaining ease of access for experienced developers. The end result was an optimized version of the documentation, built in React, that implemented defining key factors, that were derived from user studies and research.

Keywords: Node.js, React, JavaScript, .NET Core, SQLite, SASS, Docker, REST API, User Experience, Usability, Usability Testing, Figma, Swagger, Interaction Design, Project Management, Scrum

Fullstack Developer - Virtual Machine Allocation Sales Tool
Tetra Pak, Q4 2020 - Q2 2021

Tetra Pak is a market leading, international food processing and packing company that also manufactures and maintains equipment for these tasks. In order to monitor and control properties and functionality of the equipment, a modern, extensive software suite is continuously being developed, to further improve the efficiency and functionality of the provided equipment.

When delivering Tetra Pak equipment to a food processing and packaging site, the software is delivered in the form of virtual machines that need allocated server space in order to control the equipment. In order to facilitate this process for clients, the goal of this Sales Tool was to be able to calculate and recommend a physical or virtual server solution that will fit the client's needs. The project had a very wide scope, with a lot of required functionality. This was necessary in order to make the process of generating a specification as simple as possible, while still complying with the requirements placed on functionality.

While on the IoT team at Tetra Pak, David worked on the API and database solution, as well as the core functionality of the web solution. Furthermore, he took the role of Scrum Master for this project, and handled the communication between the team and the product owner and sister teams. The final result was a web application, along with a REST API. that can be used to specify the virtual machine configuration based on the required software. Furthermore, the end product can also create a bill of materials that fit the needs of the client, and their site.

Keywords: IoT, .NET Core, SQLite, REST API, CSS, Docker, React, TypeScript, Unit Testing, NUnit, Webpack, Scrum, Project Management

Frontend Developer - React Component Library
Tetra Pak, Q2 2020 - Q4 2020

Tetra Pak is a market leading, international food processing and packing company that also manufactures and maintains equipment for these tasks. In order to monitor and control properties and functionality of the equipment, a modern, extensive software suite is continuously being developed, to further improve the efficiency and functionality of the provided equipment.

React has been the standard library for developing web applications at Tetra Pak for a few years. In order to provide a unified look for React web applications at Tetra Pak, David's team was assigned the task of implementing a component library that enabled faster implementation of user interfaces for other projects throughout the company. A graphic profile was established, but it was used scarcely, since everyone was developing React components from scratch.

Based on this graphic profile, David and his team worked on implementing components as well as documenting their usage and properties. David also worked on implementing a CI/CD solution in order to quickly deploy the library as a package that integrated the latest changes, as well as updated the live documentation and developer tools. For this project, he also was assigned the role of Scrum Master. The component library is used by several teams across Tetra Pak in order to streamline their frontend development. To this day, new components and functionality is continuously added to the library in order to further expand its potential usage.

Keywords: React, TypeScript, Node.js, Docker, npm, Yarn, Puppeteer, Jest, CSS, Storybook.js, Azure Devops, CI/CD, Scrum, Project Management

Backend Developer - Installer for Software Updates and Patches
Tetra Pak, Q2 2020 - Q3 2020

Tetra Pak is a market leading, international food processing and packing company that also manufactures and maintains equipment for these tasks. In order to monitor and control properties and functionality of the equipment, a modern, extensive software suite is continuously being developed, to further improve the efficiency and functionality of the provided equipment.

Clients of Tetra Pak tend to have a lot of software running on various parts of their equipment. Manually updating a specific software can therefore be cumbersome, which is why the IoT team developed a Windows Service that is able to receive updates and patches of software remotely. The service was controlled by the administrator for a processing site, allowing for seamless updating of software for all equipment. However, before being able to use this service, it must first be installed.

When working for the IoT team, David and his colleagues were presented with the task of implementing a Windows Service installer, that leveraged several Web APIs in order to tailor the installation process to the client and their site. David was responsible for the API integration with the installer generation software, Advanced Installer, as well as writing the scripts used to access and run the API endpoints from the installer. The installer is now used across Tetra Pak when setting up and configuring new equipment for clients.

Keywords: IoT, C#, .NET Framework, Advanced Installer, Docker, Unit Testing, NUnit, SQL Server, REST API, SOAP API, Web API, Integration Testing, Windows Services

Fullstack Developer - Graphical User Interface Optimization
Tetra Pak, Q2 2019 - Q3 2019

Tetra Pak is a market leading, international food processing and packing company that also manufactures and maintains equipment for these tasks. In order to monitor and control properties and functionality of the equipment, a modern, extensive software suite is continuously being developed, to further improve the efficiency and functionality of the provided equipment.

Tetra Pak uses touch screen GUIs to control equipment at client sites. These GUIs are used by operators on a daily basis. Some of these are rather outdated and are very difficult to control accurately due to the lack of touch screen adjustments and optimization.

David's team recreated the same functionality as the existing solution, using a new technology stack, which improved stability, performance and usability. The goal was to provide a proof of concept in order to evaluate the viability of similar projects that could be conducted at Tetra Pak. David initially developed the database and API solution, and refactored outdated data structures and SQL scripts. At later stages, David worked on optimizing the performance of the web application, as well as conceptual design and implementation of the web page. In the final stages of the product, a usability study was conducted, where the optimized GUI was subject for evaluation. It was received very well by end-users, and has since acted as inspiration when designing user interfaces for Tetra Pak equipment.

Keywords: React, JavaScript, Unit Testing, NUnit, .NET Core, CSS, Bootstrap, SQL Server, Scrum, Usability, Usability Testing, User Experience

Passion Projects

Netlights consultants are passionate individuals whose strive to create reaches beyond their work. Thanks to these projects, the consultants are often able to contribute with additional valuable perspectives, experiences and knowledge to their client assignments.

Västgöta Nation Digital Voting

At the student organization David was active at during his studies, there are several situations where voting is a common occurrence. In order to facilitate this process, David implemented a voting system that uses the Excel spreadsheets that can be generated using Google Forms. Spreadsheets are used as input to a web application that calculates the results, and ensures that the validity, integrity and anonymity of the voting is kept. The voting system was built using React, TypeScript, Exceljs, Node.js, Firebase, Bootstrap and CSS.

Personal Website

With the goal to try out new concepts and technologies, David has implemented a constantly changing personal website with some information about himself along with hosting of hobby projects. The website is continuously changing, and acts as a sandbox for testing out new tools that could be used in a professional context.