

# Eduard Tiron Martinez

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 [etiron.netlify.com](https://etiron.netlify.com) (portfolio) |  [linkedin.com/in/eduardtiron](https://linkedin.com/in/eduardtiron) |  [github.com/tyronnosaurus](https://github.com/tyronnosaurus)

## WORK EXPERIENCE

**Senior Software Engineer @ Eurecat** 01/2021 – 01/2024 (3 years) *Barcelona, Spain*  
Eurecat is an R&D center offering process modernization services for other companies.

- Brought in new clients, projects and grants valued at >100.000€/year by taking projects no other department felt comfortable accepting.
- Led the development of many projects from planning phase to shipping:
  - Detection of defects in industrial knitting machines with deep learning | Python plugin for FEM analysis in 3D printing software Cura | Cloud-connected tractor with smart fertilization via satellite data | IoT system for predictive maintenance of a global fleet of threading machines | Firmware for EV conversion of a mining vehicle | Repair of undocumented Raspberry Pi based sensor for injection molding

**Software Engineer @ Ultrasion** 11/2017 – 01/2021 (3 years) *Barcelona, Spain*  
Ultrasion makes ultrasound-based plastic injection machines for fabrication of medical parts.

- Rewrote entire codebase from previous 7 years, heavily reduced technical debt that was holding the company back.
- Implemented all new requested functionalities as the ultrasound molding technology progressed.
- Enhanced client's UX through improvement of the UI design and simplification of all machine functions.
- Saved the company 10.000s of € by remaking the website from scratch and solving all IT issues in the office ASAP.
- Solved 100% of clients' support requests that were derived to me when all other coworkers could not solve them.
- Reduced my workload through process improvements and automation to the point that, by 2021, I could work nearly full-time on projects for the parent company (Eurecat), while still meeting all the programming needs at Ultrasion until 2024.

**IT Security Auditor @ PwC** 09/2015 – 10/2016 (1 year) *Barcelona, Spain*  
PwC is one of the Big Four accounting firms, and the 2<sup>nd</sup> largest provider of professional services.

- Interviewed clients and performed work to ensure the correct configuration of many different systems:
  - Application security audits (SAP, clients' in-house software...).
  - Database security audits (Oracle, DB2, MySQL...).
  - OS security audits (Windows/Active Directory, Unix, AS400...).
  - Financial reporting processes reviews.
  - Automated tests (CAAT) on General Ledger for financial year close.
  - Other data services (e.g., data quality reviews, data migration assurance...).

Internship – Engineering & IT assistant	Novatec Enginyers	Summer '13 & '15 (6 months)	<i>Tortosa, Spain</i>
Internship – Control systems assistant	Plásticos Castellá	Summer '12 (3 months)	<i>Tortosa, Spain</i>
Internship – Maintenance department assistant	Pentriilo Sofegar	Summer '07 (3 months)	<i>Tortosa, Spain</i>

## EDUCATION

- **UPC (Polytechnic University of Catalonia)** *MSc in Industrial Engineering, Automation* **2015** *Barcelona, Spain*
- **UPC BarcelonaTech** *MSc in Mechatronics Engineering* **2017** *Barcelona, Spain*

## SKILLS

- **WebDev:** React.js, Next.js, Tailwind CSS, JavaScript, TypeScript, HTML, HTML5, CSS, Bootstrap, WordPress, Full-stack, Frontend, Backend
- **Development:** Python, C, C++, C#, .NET, Qt, Git, Subversion (SVN), Unity
- **Data Science:** Pandas, Matplotlib, Machine learning, scikit-learn, Deep learning, Tensorflow, CNN, SQL, Node-RED, MQTT
- **DevOps:** Linux, Docker, Kubernetes
- **Mechatronics:** PLCs, B&R, Codesys, Structured Text (ST), Electric Vehicles (EVs), Ladder, Turck, Panasonic, FPWIN, HMWIN, TX Visu Pro, IFM, Beijer, iX Developer, CAN, J1939, ISOBUS, CAD, SolidWorks, 3D printing
- **Electronics:** Arduino, Altium Designer, KiCAD

## LANGUAGES, CERTIFICATIONS

- **Languages:** English C2, Certificate of Proficiency (CPE) | German A1 | Spanish (native) | Catalan (native)
- **Certifications:** CKA (Certified Kubernetes Administrator), IBM Data Analyst, IBM Data Science, CAPM (Certified Associate in Project Management)