Vincenzo Schettino

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Education

- **Master of Science in Automation and Robotics Engineering** — Napoli, Italy
  University of Naples Federico II; Summa cum Laude with commission´s honourable mentions — *Sep 2014 - Jul 2016*
- **Bachelor of Science in Automation and Robotics Engineering** — Napoli, Italy
  University of Naples Federico II; GPA: 4.0 — *Sep 2011 - Jul 2014*

Work Experience

- **Tech Lead Surgical Robotics** — Freiburg/Boston
  Stryker Corporation — *Jun 2021 - present*
  - **Leading a team of software engineers** in the design, development, and testing of navigated robotic surgical systems
  - Identify promising robotics solutions, reduce key technical risks, and **drive the development from prototype to commercialization.**
  - Collaborating with marketing, clinical specialists and surgeons to **understand market needs** and architect technical solutions ensuring customer satisfaction.
- **Sr. Software Engineer - Medical Robotics** — Augsburg/Boston
  KUKA Deutschalnd GmbH — *Sep 2017 - May 2021*
  - **Lead software architecture, implementation, integration, and testing of complex, software solutions** for robot control in the field of medical technology.
  - Translated **highly technical results** into easily understood recommendations that influenced senior stakeholders and **drove new KUKA technologies into the market.**
  - **Established best-practices for medical device software(IEC62304)** development within the organization.
  - **Promoted the development of new technologies** for different KUKA Medical Robotics customers based on collision-free path planning and trajectory optimization.
- **Research Engineer, Robotics** — Augsburg
  KUKA Roboter GmbH — *Sep 2016 - Jun 2016*
  - Extended a **real-time capable control software architecture for distributed robot control.**
  - Took leadership to design, develop and test new **robot control algorithm based on whole-body control and trajectory optimization approaches** with KUKA cobots.
  - **Evangelized** the obtained results in international conferences and internal global company events with C-Levels audience.

Skills Summary

- **Languages** **C++, Java**, Matlab/Simulink, CMake, Python, C#, UML
- **Frameworks** **Agile, Atlasssian, Git**, Azure, Jenkins, TFS, Perforce, CI/CD, SonarQube, Enterprise Architect
- **OS** Linux, Windows, VxWorks
- **Interests** **Robotics, Safety Critical Systems, Software Engineering**, Trajectory Optimization,Whole-Body Control, Redundancy Optimization
- **Certification** *Modern C++1.x Design* (QA Systems), *Artificial Intelligence: Business Strategies and Applications* (UC)

Patents

- Schettino V., Lutscher E., 2020, **"Improvement of robot accuracy with a compensation of the non-perfect robot rails straightness in radiation therapy applications"**, WO2022084078A1.
- Schettino V., 2020,**"Pseudo Cartesian Velocity Motion Commands for Robot Applications"**, DE102019219930B3.
- Schettino V., 2020, **"An online-capable computational procedure to detect and predict task/constraint conflicts and task/task conflicts"**, DE102021201024B3.
- Schettino V., 2019, **"Novel Dinamically Consistent Manipulability Index and its Robotic Applications"**, WO2021122173A1.
- Schettino V., 2019, **"A computational method to detect and avoid tasks singularities"**, DE102019219930B3.
- Scheurer C., Schettino V., Allmendinger F., Fiore D. M., 2018, **"An intuitive teaching approach for robot applications with physical contact and specific process forces"**, DE102018206947A1.

Publications

- Schettino V., Fiore M.D., Pecorella C., Ficuciello F., Allmendinger F., Lachner J., Stramigioli S. and Siciliano B., **"Geometrical Interpretation and Detection of Multiple Task Conflicts using a Coordinate Invariant Index"**, 2020, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Las Vegas, USA.
- Lachner J., Schettino V., Allmendinger F., Fiore M.D., Ficuciello F., Siciliano B. and Stramigioli S.,**"The influence of coordinates in robotic manipulability analysis"**, 2019, Mechanism and Machine Theory, Elsevier.