

Andy Mitchell

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EDUCATION

University of Portsmouth

Bachelor of Science in Engineering and Management Studies — First Class Honours

Portsmouth, UK

Sep. 2016 – July 2018

Universidad Politécnica de Madrid

Master of Science in Software Engineering — Grade: 9.39/10

Madrid, Spain

Sep. 2020 – Dec. 2022

EXPERIENCE

Senior Software Engineer

Actemium Automation (Formerly Cougar Automation)

January 2022 – Present

Remote / Portsmouth, UK

- Responsible for maintaining and updating a project consisting of a .NET Windows application visualising data transmitted over Modbus from multiple customer-specific PLCs
- Developed and maintained a team-wide knowledge-sharing wiki hosted on GitHub, promoting a culture of collaboration and consistent best practices across the team
- Trained and mentored apprentices and graduate students, guiding their professional development and teaching them good working practise for their future careers

Software Engineer Intern

Hovering Solutions

Sep. 2021 – Dec. 2021

Madrid, Spain

- Developed a full-stack web application using React, Node and MySQL to support parameter configuration for custom-built drones operating on the Robot Operating System (ROS)
- Configured hosting of web app directly on custom drone hardware with parameters being read and updated in real-time through a custom binary protocol communicating with the ROS application
- Developed a 3D visualization tool using the ros3djs and roslibjs JavaScript libraries to interpret and display sensor data read by the drone as both a point cloud and live camera feed
- Acted as a mentor for a fellow intern who was new to software development

Software Engineer

Cougar Automation

Aug. 2012 – Feb. 2021

Portsmouth, UK

- Involved in all parts of the project lifecycle from system design and requirements gathering to software development, testing, and elements of project management
- Responsible for the design and development of control software for a Hydrogen Recovery System to recycle hydrogen used to flush out particles in ASML/TSMC EUV lithography machine
- Worked extensively on a variety of projects with multiple PLC, SCADA and HMI technologies such as Rockwell, Beckhoff, WonderWare and Iconics

PROJECTS

Cayapas Telemedicine Web & Android App | *Elixir, Phoenix, PostgreSQL, Docker, Kotlin, ObjectBox* 2022

- Developed a full-stack web application using with Phoenix serving a REST API with React as the frontend
- Used Gettext library to support Spanish/English language support
- Implemented custom synchronisation protocol to allow for Android app to store patient data locally on-device when offline and update web database when WiFi is available
- Android app allowed for image upload from gallery or camera to provide further patient info
- Added a chat feature to allow for communications between volunteer specialists and rural doctors
- On-site work involved commuting to several remote villages via canoe to perform outreach and usability testing

TECHNICAL SKILLS

Languages: Java, C#, Kotlin, VB, Python, Elixir, SQL (MySQL, Postgres), JavaScript, HTML/CSS

Frameworks: React, Node, Express, Spring, JUnit, Bootstrap, Phoenix, Ecto

Developer Tools: Git, SVN, AWS EC2, Tomcat, Azure, Docker, VS Code, Visual Studio, PyCharm, IntelliJ, TravisCI