

- Secured products' selling points by delivering 30+ technical presentations to executives, technical or non-technical stakeholders, and reseller partners worldwide.
- Planned software feature roadmaps of and UI/UX enhancements by collecting customers' feedback from diverse channels.

**REALTEK Semiconductor** | *Firmware Engineer - Wi-Fi Router*

Jun. 2012 ~ Oct. 2013, Taiwan

## Leadership and Awards

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- Promoted among managers of 20+ at Netgear for leading 10+ software engineers to develop data analytics projects, deploying them to production, and providing insights for several teams at the company. Key projects include:
  - **Wi-Fi Connection Analytics** has accelerated the support team's remote troubleshooting process for wireless connection failures through the visualization of wireless data.
  - **Onboarding Method Analytics** has guided the campaign strategies for the marketing teams by identifying customers' preferred engagement channels and frequencies.
- Managed 15+ members from R&D, QA, UI/UX, PM, and Marketing teams at Foxit Software and provided direct mentorship to bring **iDox.ai** to the market in six months.

## Projects ([GitHub](#))

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### *Impact of Superhost on the Annual Revenue of Listings on Airbnb*

- Investigated causal effects between a listing's revenue and its host as well as other features in the hospitality industry.
- Performed data wrangling, matching, statistical modeling, and visualization using Python on a geospatial dataset.

### *Customer Segmentation and Churn Prediction for Payment Transaction Service*

- Applied the RFM framework to separate customers into four categories by their engagement and value for the service.
- Identified criteria of the potential churn with Semi-supervised Learning and predicted according to business context.

### *An IoT Risk Identification and Prevention Framework – Mobile Auth for Wi-Fi Access*

- Calculated risk scores of IoT devices using machine learning and created a risk profile with their 2FA phone numbers.
- Synthesized a Wi-Fi access dataset and labeled it with clustering algorithms and outlier detection packages in Python.

### *Personalized Product Recommendation*

- Built an online recommendation system to suggest customized items based on a 1M-observation like-unlike dataset.
- Applied Collaborative Filtering to calculate similarity scores among users using Pandas and achieved a 74% accuracy.

### *2021 Duke Datathon – Evaluating Democracy Satisfaction of People in Different Countries*

- Explored the relationships between democracy satisfaction and factors from demography, economics, and social justice.
- Performed data cleaning, wrangling, and visualization using Python on a 22M-observation survey dataset.

## Knowledge and Skills

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**Data Science** Machine Learning, Statistical Modeling, Hypothesis Testing, Causal Inference, Deep Learning, Computer Vision, Natural Language Processing, AWS, Azure, Databricks, DevOps, MLOps.

**Product** Experimentation and A/B Testing, Data Visualization and Storytelling, SaaS, APIs, Tech Spec Design, Product Management, Agile/Scrum Development, UI/UX, Marketing Analytics, GTM, User Growth, SEO.

**IoT and Cybersecurity** Wireless Communication (Wi-Fi, Cellular Networks), Embedded Linux System, Software/Firmware Development, Two (Multi)-factor Authentication (2FA/MFA).

**Programming** Python (scikit-learn, PyTorch), R, SQL, C++, C (Embedded Linux).

**Tools** Tableau, Git, Docker, Google Analytics, Jira, Confluence, Microsoft Office Suite (Excel, PPT).