

Jonathan Logan Moran

[linkedin/github/devpost/portfolio](#)

CONTACT

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EDUCATION

University of California, Merced— School of Engineering

CLASS OF 2020

Computer Science & Engineering, B.S., Minor in Cognitive Science

- Relevant Coursework: Software Engineering in Teams, Linear Control, Signals & Systems, Circuit Theory, Probability & Statistics, Research Methods, Computer Vision, Algorithm Design & Analysis, Spatial Analysis & Modeling
- Awards: Most Promising Innovation (SD Hacks 2.0), 1517 Fund Award (SD Hacks 2.0), 1st Place in Creativity (HackMerced), Dean's Honors List
- Leadership: Mental Health Merced (Co-founder), NAMI Chapter (Co-founder), HackMerced (Leadership committee)

Lunds Tekniska Högskola, Sweden— Faculty of Engineering

JAN 2019 - JAN 2020

- Relevant Coursework: Applied Machine Learning, Applied Artificial Intelligence, Computer Vision
- Awards: Brons I (TLTH:s Valörer), Brons II (TLTH:s Valörer)
- Leadership: Proud Tech vid TLTH (Direktør), Smålands Styrelsen (Web Responsible, Cafe Commissar)

RELATED EXPERIENCE

The Morning Star Company

FEB 2020 - JUN 2020

Software Engineer | Intern

- Built computer vision-based agricultural analytics software to monitor the health/growth of 3 billion plants annually
- Deployed a robust data model to identify key factors responsible for saving up to 600 million ungerminated plants
- Guided team from design to deployment; won best solution as a result of subject-matter expertise in CV and ML

CRADL Lab

JUN 2018 - JAN 2019

Research Assistant, Software Engineer

- Turned research ideas into IRB-certified experiment designs, lab software and journal publications
- Conducted longitudinal analysis of over 18k subjects; invited to co-present at ICPS Paris 2019
- Built data gathering/analysis pipelines in human subjects studies (perception and attention)
- Publication: Moran, J. L. (2019). Classifying Emotion Using Convolutional Neural Networks. *UCM URJ*, 11(1).

Google

MAR 2017 - JUL 2017

CodeU Software Engineer

- First engineer in programme to identify major architectural weaknesses; awarded distinction from directors
- Refactored Java codebase; added database integrations and designed desktop + web interfaces
- Exceeded all project goals across MVP feature releases, weekly code reviews and advisor meetings

SKILLS

- **Programming Languages:** Python (proficient), MATLAB and Simulink (proficient), SQL, Java and C++ (experienced)
- **Data & Machine Learning:** Python (scikit-learn, keras, tf), SQL (MySQL, PostgreSQL), ML (classification, regression, clustering, RL), AI (localisation, search, planning), Jupyter/Google Colab, Computer vision, Spreadsheets, Git
- **Interpersonal:** Cross-functional leadership, Stakeholder management, Strategic decision-making

CERTIFICATIONS AND TRAINING

MAE143B: Linear Control (<https://bit.ly/3KANxgD>)

JAN 2022

Input/output signals, block-diagrams, disturbance rejection, transfer functions, dynamic response, ODEs, feedback controller design, frequency-response method, Bode & Nyquist plots, tracking and stability, PID control

FMAN95: Computer Vision

NOV 2019

Projective geometry, structure from motion, epipolar geometry, model fitting, RANSAC, SVD, Convex/Newton optimisation

EDAN95: Applied Machine Learning (<https://bit.ly/30Q86ck>)

NOV 2019

Decision trees (ID3, CART), Classification, Neural Networks (CNN, RNN, LSTM), NLP (N-grams, language models), NBC, NCC, GNBC, EM, k-Means clustering, k-Nearest Neighbors, Reinforcement Learning (Markov, Monte Carlo Methods)

EDAF70: Applied Artificial Intelligence (<https://bit.ly/37wuAOG>)

JAN 2019

Robot localisation, Hidden Markov Models, Alpha-beta pruning, Linear/logistic regression, Search/planning algorithms