AUSTIN J. HUNT, M.S.

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EXPERIENCE

- **NovaBrains.ai** - An LLM-assisted digital textbook platform for educators and learners alike, offering an affordable toolkit that simplifies use and management of engaging, interactive courses. In collaboration with Ayman Hajja, PhD.
  Roles: Cloud architect, devops engineer, full-stack co-developer, cofounder   *Oct 2023 - Present*
  - Architect AWS cloud microservice infrastructure with R53, EBS, Lambda, SAM, S3
  - Implement Cloudwatch-integrated Django logging middleware with standardized JSON formatting to simplify troubleshooting and monitoring
  - Design and implement CI/CD pipeline with GH Actions, AWS CLI, R53, and EBS with preview environment provisioning and Slack notification webhooks to aid rapid development
  - Meet multiple times a week with co-founder to discuss product roadmap, feature development, business strategy, and dev ops strategy for optimal growth
  - Co-develop front-end and back-end EBS environments with React and Django REST Framework using GitHub workflow
  - Maintain detailed API documentation with Swagger and write API tests for each new endpoint
  - Deploy and leverage Lambda functions to offload long-running LLM-based tasks from the main application
  - Launch and begin testing a functional service within a few months of initial idea conception
  - Leverage GCP for sending automated emails with Gmail API; use Google reCAPTCHA for bot mitigation on public forms
  - Expand RBAC logic to allow TAs to assist instructors with course management

  Technologies: AWS (R53, EBS, S3, Lambda, Cloudwatch, IAM), Python, JS, GitHub Actions, React, Django REST Framework, OpenAI ChatGPT API, Swagger, Slack, Jira, GCP, reCAPTCHA

- **StudyRocket.ai** - An AI-powered study buddy that helps students *master* rather than *memorize* material by providing on-the-fly interactive quizzes about uploaded documents, linked articles, or chosen topics. In collaboration with Ayman Hajja, PhD.
  Roles: Cloud architect, devops engineer, full-stack co-developer, cofounder   *June 2024 - Present*
  - Implement, troubleshoot, and test a very similar cloud-based microservice architecture and CI/CD pipelines to NovaBrains.ai (see above)

  Technologies: AWS, GCP, Python, PySpark, Airflow, Vertex, BigQuery, Dataproc, Tensorflow, BERT.

TECHNICAL SKILLS

- **Programming languages:** Python, PowerShell, Bash, JavaScript, TypeScript, SQL
- **Cloud services:** AWS (see projects), GCP (AI Platform), Azure (Blob storage).
- **Deep learning frameworks:** Keras, Tensorflow.
- **Others:** xgboost, scikit, pandas, falcon, flask, fastapi, Docker, Kubernetes, Jenkins, Terraform
- **Currently learning:** Transformers models, Vue, Nodejs.

EDUCATION

- **Vanderbilt University**   Nashville, TN
  M.S. in Computer Science   *May 2021 - Dec 2022*
  - Develop, document, and present large projects for distributed systems, networking, cloud computing, automated verification, data pipelines & ML/DL, modeling & meta-modeling, and collaborative software engineering.
  - M.S. Portfolio 🔗

CERTIFICATIONS (WITH LINKS)

- **@ Udacity/Coursera**   MOOC
  Machine Learning Engineering for Production (MLOps) Specialization   *Issued July 2022*
  Machine learning engineer nanodegree   *Issued March 2021*
  Deep learning specialization   *Issued January 2021*
  Sequence models   *Issued January 2021*
  Convolutional neural networks   *Issued September 2020*
  Structuring machine learning projects   *Issued May 2020*
  Improving deep neural networks: Hyperparameter tuning, regularization and optimization   *Issued May 2020*
  Neural networks and deep learning   *Issued May 2020*
  R Programming   *Issued September 2016*
  Text mining and analytics   *Issued August 2016*
  Text retrieval and search engines   *Issued June 2016*
  The data scientist's toolbox   *Issued June 2016*
  Data visualization   *Issued March 2016*

PERSONAL PROJECTS (WITH LINKS)

- sketchyactivity.com - a simple and clean art portfolio SPA built with React; replaced the previous version built with Django, S3, and Slack webhooks
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CO-AUTHORED PUBLICATIONS (WITH LINKS)

- A Template-Based Spaced Repetition Learning Solution Designed for Educators; 2021 IEEE FIE Conference. FIE Conference. Oct 2021
- A Novel E-Learning Platform for Building and Publishing Student-Driven Personalized Lessons; 2020 IEEE FIE Conference. FIE Conference. Oct 2020
- PolyPy: A Web-Platform for Generating Quasi-Random Python Code and Gaining Insights on Student Learning; 2019 IEEE FIE Conference. FIE Conference. Oct 2019