# **Christian F. Jung**

**Education** 

#### **University of Virginia**

BS Computer Science

Relevant Coursework: Machine Learning, Information Retrieval, Hacking For Defense, Algorithms

## **Experience**

#### Novetta

Machine Learning Engineer and Lead Intern

- > Cultivated research on synthetic image generation using OpenAI's DALLE and VQ-GAN for image augmentation
- > Utilized state-of-the-art similarity search algorithms to provide critical analysis for predictive maintenance of helicopter engine failures for military and DOD customers
- > Managed other interns and helped facilitate professional and social connections

#### Intern @ the Machine Learning Center of Excellence (MLCOE)

- > Developed a new method for text model explainability using generative transformers and Open AI's GPT to improve customer's understanding of black box ML learning models
- > Compiled research from new method into a closed source python package so all 1000+ of Novetta's employees could use my methods
- > Explained and wrote summaries of new NLP research in Novetta's monthly newsletters

### Forge (Formerly Known as HackCville)

**Courses Director** 

- > Manage a team of 30 in the teaching and curriculum development of Data Science, Software Engineering, UX Design, digital marketing, and graphic design courses
- > Facilitate the enrollment, marketing, and finances of 100+ students who signed up for our courses
- > Provide mentorship and opportunities for staff to grow within Forge and run a three day leadership seminar

#### Data Science Lead Instructor

- > Taught and developed lesson plans for Node Pro, a 10-week series of 2 hour classes, teaching data science fundamentals in Python, data manipulation and cleaning in pandas, machine learning fundamentals, and an introduction to deep learning
- > Organized lab-sessions for small group instruction and provided catered feedback
- > Introduced 75+ students to data science in the 3 semesters that the class has been taught

#### **Global Inquirer Podcast**

Senior Technical Producer

- > Lead a team of 25 people in the development of weekly episodes that brought together a diverse group of distinguished academics, working professionals, and students to discuss current issues in foreign affairs
- > Recorded audio in a professional studio and utilized Adobe software to edit and produce 10 episodes each semester

## **A** Projects

## Mapping Floods and Building a Smart City for Ho Chi Minh City, Vietnam

National Science Foundation Funded Capstone Research

> Create an app to warn Vietnamese citizens of floods in their area while working with international stakeholders and developing the cloud infrastructure.

## Aligning the US Cyber Budget for the Army Cyber Command

> Assisted a Colonel in evaluating the Cyberspace Solarium Commission report to align their budget to "develop a consensus on a strategic approach to defending the United States in cyberspace."

#### **Ranking Terrorism Propaganda on Twitter**

> Modified Google's PageRank algorithm to rank tweets that contained propaganda which allow the most influential terrorists online to be identified

## 🗱 Skills

Languages Python, Bash, C++, Java, Dart + Flutter, HTML, C, Swift

Certifications Insider Threat Awareness, Intro to Information Security, OPSEC Awareness, DOD Unauthorized Disclosures Extracurricular Coursework Fast.ai - Practical Deep Learning for Coders, Stanford CS 223n - Intro to NLP Fun Facts PADI Scuba Certified, Gordon Ramsay super fan, and amateur chef

Sept. 2020 - May 2021

Part-time & Remote

May 2020 - Aug. 2020

Remote

Aug. 2021 – Present

Charlottesville, VA

Jan. 2019 - May 2021

Charlottesville, VA

Aug. 2019 - May 2021

Charlottesville, VA

Aug. 2021 - Present

Aug. 2020 - Dec. 2020

Jan. 2020 - May 2020

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Aug. 2018 - May 2022

Charlottesville, VA