

Michael Bronikowski

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Education

Master of Science in Computer Science, Concentration in AI

Binghamton, NY

Binghamton University - Watson School of Computing

Jan 2025 - May 2026 (Expected)

- **GPA:** 3.8 **Coursework:** Deep Learning, Intro to AI & ML, Data Structures and Algorithms, Quantum Computing

Bachelor of Science in Engineering Physics, Bachelor of Arts in Mathematical Sciences

Binghamton, NY

Binghamton University - Harpur School of Arts & Sciences

Aug 2019 - Dec 2024

Professional Experience

NYU Langone - Office of Technology Opportunities and Ventures (TOV)

(Hybrid) - New York, NY

AI Program Coordinator (Full Time)

Feb 2025 - Present

- Build production AI applications within enterprise healthcare systems using Python, TypeScript, LangChain, OpenAI, and Azure, delivering technical artifacts including MCP servers, sub-agents, and agents used in production workflows
- Provide white glove deployment support directly with enterprise IT systems, leading end-to-end development from stakeholder discovery to production deployment while identifying and codifying repeatable deployment patterns

AI Solutions Development Consultant

Aug 2024 - Feb 2025

- Researched and evaluated emerging LLM capabilities and implementation patterns to assess fit for TOV's goals, delivering reports, demos, and recommendations that shaped the AI roadmap and led to a full-time offer
- Built long-term relationships with faculty and staff across NYU and NYU Langone to conduct discovery, surface high-value AI use cases, and proactively identify new deployment opportunities throughout engagement lifecycle

Binghamton University - Office of Entrepreneurship and Innovation Partnerships

Binghamton, NY

AI Process Development Intern - Technology Transfer Office

Mar 2024 - Jun 2024

- Worked directly with tech transfer officers and faculty stakeholders to evaluate and deploy AI tools for disclosure forms, patent applications, and licensing workflows with white glove deployment support
- Improved the operational efficiency of workflows by introducing AI enabled tools, including building custom AI assistant solutions through Custom GPT's, custom developed software interfaces, and industry available AI tools

Hoku Analytics - Fintech Startup

Honolulu, HI

AI Software Engineer

Jan 2023 - Sep 2023

- Restructured and optimized a Python-based AI/ML financial features library reducing processing time from 58 seconds to 3 seconds and integrating 30+ new features from C# technical analysis libraries
- Reverse-engineered over 200 mathematical and statistical academic studies into PyTorch models adding hyperparameters for AI/ML optimization totaling over 10 million data points and improving model accuracy by 50%

Research and Publications

Binghamton University - Assistant Researcher

Binghamton, NY

CRAFT Lab - Truthfulness in LLMs, Retrieval Augmented Generation, and Agentic AI

Aug 2025 - Present

- Exploring the underlying differences and overlaps between LLM outputs and human language/ reasoning to develop methods for deeper human and AI collaboration through more human-aligned, reliable, and creative AI systems

Publications

- [Stylistic Contrastive Learning for Human-Like AI Text Generation](#), Agents4Science 2025, Stanford University
- [Scalable Oversight in Multi-Agent Systems: Provable Alignment via Delegated Debate and Hierarchical Verification](#), Agents4Science 2025, Stanford University (Top 10 Paper by Score)

Pre-Publications

- [Feature not a Flaw: Leveraging "AI Creativity" \(Hallucinations\) for Scientific Discovery](#)

AIR (Autonomous Intelligent Robotics) Lab - Large Language / Vision Language Models

Sep 2023 - Dec 2024

- Exploring the supplementation of computer vision models with natural language processing models to create a common sense reasoning system replicating intelligent disobedience in guide dogs for visually impaired users

Pre-Publications

- [Towards Intelligent Disobedience for Robotic Guide Dogs: Evaluation of Dangerous Scenes using VLMs](#)

BuzzHive - Lead Researcher

Binghamton, NY

World Models for Environmental Understanding (Time Series & NLP)

Jan 2024 - Present

- Lead research on building world models for beehive environments using custom-built multimodal sensors and time series/NLP models to detect/ convey early anomalies in honeybee health and improve honeybee colony survival rates

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Leadership

Binghamton University Bees Club

Binghamton, NY

Executive Beekeeper

Aug 2023 - Present

- Lead group beehive visits, taking care of on-campus beehives including routine hive inspections and honey collection

President

Aug 2021 - Jul 2023

- Coordinated bee events for 370+ students teaching beekeeping methods and winning student's choice award: best club

Binghamton University Research Immersion Program

Binghamton, NY

Course Assistant / Student Research Mentor - AI Deepfake Detection

Aug 2020 - May 2021

- Advised a team of 6 students researching machine learning for fraudulent facial recognition tested over large datasets
- Prepared and presented research findings at Binghamton's research symposium to over 300 faculty and peer attendees

Entrepreneurship

Buzzhive, LLC

Binghamton, NY

Co-Founder, CEO, Head of Beekeeping

Mar 2024 - Present

- Designing and implementing an AI-powered beehive management system, integrating IoT sensors and predictive analytics to monitor hive health, reduce bee mortality, and optimize operational efficiency for beekeepers
- Lead development and prototyping of hardware and software solutions, securing funding and partnerships through grants, pitch competitions and 2024 REV Ithaca/ Cornell Proto-facturing Accelerator Graduate

Irek's Apiary, LLC

Binghamton, NY

Co-Founder, Assistant Beekeeper, Head of Product

2012 - Present

- Scaled sales and marketing operations for a 30-hive apiary, building a strong presence through farmers markets and a TikTok channel with over 60,000 followers fostering brand loyalty and happy honey customers
- Care for 30 beehives by performing routine inspections, monitoring hive health, managing colony growth, and ensuring sustainable honey production through practicing modern yet traditionally rooted beekeeping practices

Fine Mining, LLC

Binghamton, NY

Co-Founder, CEO

Dec 2021 - Dec 2022

- Built and scaled Fine Mining's high end computing hardware marketplace platform from concept to launch with over 5,000 impressions on the App Store and driving early user adoption through strategic marketing and product design
- Led the product design and development using Flutter with REST APIs for real-time inventory management and user authentication, and integrating Stripe API for secure payment processing

Startup Accelerators

Cornell University - REV Ithaca Startup Works

(Remote) Ithaca, NY

Prototyping & Manufacturing Startup Accelerator

Jul 2024 - Jul 2025

- Transitioned BuzzHive's multimodal IoT beehive monitor from proof-of-concept to "design freeze" production prototype exploring user engagement, and data streaming for AI model training with Cornell Engineering partners

Binghamton University - Koffman Southern Tier Incubator

Binghamton, NY

Software Startup Accelerator

Feb 2021 - Dec 2022

- Learned go-to-market strategy for early-stage startups through one-on-one mentorship and group coursework, refining plans through customer discovery to improve user journeys, prioritize features, and prepare for scalable software

Awards, Competitions, and Public Presentations

Invited Speaker - ["Future of AI and Nature" Shibuya QWS Academia, Waseda University, Tokyo JP](#)

Nov 28, 2025

Finalist - [2025 FuzeHub NYS Innovation Summit Commercialization Competition](#)

Oct 29, 2025

Second Place - [2025 City of Binghamton Business Plan Competition](#)

June 3, 2025

First Place - [2025 New York State Business Plan Competition: AgTech](#)

Apr 24, 2025

Nominee - [2025 Entrepreneur of The Year, Greater Binghamton Chamber of Commerce](#)

Apr 22, 2025

Grand Prize - [2025 Cornell University DigitalAg Hackathon](#)

Mar 3, 2025

Invited Judge - [2024 Binghamton University Entrepreneur Connect Club Pitch Competition](#)

Nov 22, 2024

Invited Lecturer - [Binghamton University School of Management - Entrepreneurship 460](#)

Sep 17, 2024

First Place - [2024 New York State Business Plan Competition: Software & Services](#)

Apr 25, 2024

State Finalist - [2023 New York State Business Plan Competition: Software & Services](#)

Apr 27, 2023

Research Mentor of Impact Award - [Binghamton University Research Immersion Program](#)

Dec 15, 2022

Second Place - [2021 New York State Business Plan Competition: AgTech](#)

May 11, 2021

National Finalist - [Future Business Leaders of America Competition: Entrepreneurship](#)

Apr 11, 2019

Team Captain - [6x Regional Gold Medalist, 3x Regional Silver Medalist Vestal Science Olympiad](#)

2018 - 2019